30 10:32:10 2004

Fri Jul

.

```
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                  OM nucleic - nucleic search, using sw model
```

Run on:

July 29, 2004, 16:12:44; Search time 1 Seconds (without alignments) 0.633 Million cell updates/sec

Title: Perfect score: Sequence:

US-09-904-568-1 835

1 atgtctgctttgggggctgc.....gagtcaacagctgggcaggg 835

IDENTITY NUC Gapop 10.0 , Gapext 0.5 Scoring table:

23 segs, 379 residues Searched:

46

Total number of hits satisfying chosen parameters: Minimum DB seq length: 8 Maximum DB seq length; 50

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 18 summaries

rstdb:* Database : Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	ACCESSION: AL457045	ACCESSION: AZ871545	ACCESSION: AZ331082	ACCESSION: AZ585820	ACCESSION: AZ796553	ACCESSION: C00646	ACCESSION: AZ595570	ACCESSION: AZ623310	ACCESSION: AZ858978	ACCESSION:L76129	ACCESSION:AIS82256	ACCESSION:BM397622	ACCESSION: CF340244	ACCESSION: BQ589768	ACCESSION: BM399662	ACCESSION:CA796369	ACCESSION: CF332179	ACCESSION: BM395984
ΩI	TA48E09P	AZ871545	AZ331082	AZ585820	AZ796553	C00646	AZ595570	AZ623310	AZ858978	L76129	AI582256	BM397622	CF340244	BQ589768	BM399662	CA796369	CF332179	BM395984
99	_	-1	П	-1	н	Н	Н	Н	Н	Н	Н	٦	-	Н	Н	Н	Н	Н
Query Match Length DB	21	23	19	19	20	19	19	19	19	15	16	14	15	13	15	15	15	11
Query	1.9	1.8	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.2	고. 5	1.2	1.2	1.2
Score	15.8	15.2	13.4	13.4	13.2	12.6	12.4	12.4	12.4	11.8	11.8	11.4	11.4	10.4	10.4	10.2	10.2	10
ult No.	н	0	m	4	Ŋ	9	7	ထ	σ	01	11	12	13	14	15	16	17	18
Result No.	1		υ					υ		บ		υ			υ		υ	

ALIGNMENTS

		GSS 13-DEC-2000	sequence,				•		
		linear	forward						
		21 bp DNA	DNA clone 48e09,						
-		TA48E09P	T. brucei sheared genomic DNA clone 48e09, forward a	genomic survey sequence.	AL457045	AL457045.1 GI:11857508	GSS.	Trypanosoma brucei	• .
RESOLUT. T	TA48E09P	LOCUS	DEFINITION		ACCESSION	VERSION	KEYWORDS	SOURCE	ORGANISM

ΔH	Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae; Trypanosoma.
Query Match Best Local Similarity Matches 17; Conserv	h 1.9%; Score 15.8; DB 1; Length 21; Similarity 89.5%; Pred. No. 1.4; 17; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
Oy 566 Db 1	566 GGGATCCTCGCTGCCTCAC 584
RESULT 2 AZ871545 LOCUS DEFINITION 2 ACCESSION A VERSION A KERWARN	AZB71545 23 bp DNA linear GSS 21-FEB-2001 210ne UUGCZM0184A04 R, genomic survey sequence. AZB71545.1 GI:13077852
WS.	Mus musculus (house mouse) Mus musculus Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
Query Match Best Local Matches 1	Ouery Match 1.8%; Score 15.2; DB 1; Length 23; Best Local Similarity 85.0%; Pred. No. 2.5; Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
Oy 525 Db 1	GGGAGTCBACGCCTCTTCT 544

```
AZ331082 1005 19 bp DNA linear GSS 29-SEP-2000 1M0056C13R Mouse 10kb plasmid UUGC1M library Mus musculus genomic clone UUGC1M0056C13 R, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                Mus musculus (house mouse)
Mus musculus
Eukaryota / Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                      Query Match
1.6%; Score 13.4; DB 1; Length 19;
Best Local Similarity 93.3%; Pred. No. 3.9;
Matches 14; Conservative 0; Mismatches 1; Indels
                                                                                                AZ331082.1 GI:10393262
GSS.
                                                                                                                                                                                                                                                                                                                                                         935 GTTTTGTTTTATGAG 949
RESULT 3
AZ331082/c
LOCUS
DEFINITION
                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                              ò
```

AZ585820
1M0391115F Mouse 10kb plasmid UUGC1M library Mus musculus genomic clone UUGC1M0391115 F, genomic survey sequence.
AZ585820
AZ585820
AZ585820.
AZ585 GTTTTGTTTTATTAG 4 18 RESULT 4 AZ585820 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM g

ö Gaps ö Query Match
1.6%; Score 13.4; DB 1; Length 19;
Best Local Similarity 93.3%; Pred. No. 3.9;
Matches 14; Conservative 0; Mismatches 1; Indels ö

Gaps

. 0

KEYWORDS SOURCE ORGANISM

ACCESSION VERSION

LOCUS

RESULT 5 AZ796553

schu568-1.rst

```
Lector 16 bp mRNA linear .EST 14-DEC-1999 tq65f03.x1 NCI CGAP Lu19 Homo sapiens cDNA clone IMAGE:2213693 3' similar to TR:\oldownorm 000204 HYDROXYSTEROID SULFOTRANSFERASE HSST2A. [1] ;contains PTR5.t3 PTR5 repetitive element ;, mRNA sequence. AIS82256 GI:4568153 EST.
AZ623310 19 bp DNA linear GSS 13-DEC-2000 1M0460G19R Mouse 10kb plasmid UUGCIM library Mus musculus genomic clone UUGCIM0460G19 R, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AZ858978 linear GSS 21-FEB-2001
2M0164F24F Mouse 10kb plasmid UUGCIM library Mus musculus genomic
clone UUGC2M0164F24 F, genomic survey sequence.
                                                                                                                                            Mus musculus (house mouse)
Wus musculus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (house mouse)
Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   L76129
SCMRAP0223 G2/KS adult worm mini-library Schistosoma mansoni cDNA
clone SMRAP0223, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Schistosoma mansoni
Schistosoma mansoni
Bukaryota; Merazoa; Platyhelminthes; Trematoda; Digenea;
Strigeidida; Schistosomatoidea; Schistosomatidae; Schistosoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              / Match 1-4%; Score 11.8; DB 1; Length 15; Local Similarity 86.7%; Pred. No. 4.7; les 13; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                             ch 1.5%; Score 12.4; DB 1; Length 19; I Similarity 92.9%; Pred. No. 6.7; 13; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
1.5%; Score 12.4; DB 1; Length 19;
Best Local Similarity 92.9%; Pred. No. 6.7;
Matches 13; Conservative 0; Mismatches 1; Indels
                                                                           AZ623310
AZ623310.1 GI:11745500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AZ858978
AZ858978.1 GI:13052726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              393 GGCACACACACCCTG 407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               L76129
L76129.1 GI:1196867
                                                                                                                                                                                                                                                                                                                                                               655 GTGTTCTCATGCAG 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          825 GGTGCTGAAGCTGG 838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     s ścieciekkaciec 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15 GGCAAACACACCCCG 1
                                                                                                                                                                                                                                                                                                                                                                                                     15 GTGTTCTAATGCAG 2
                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                      Best Local Similarity
Matches 13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S:
Matches 13
                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
       LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                        ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
L76129/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
AI582256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
AZ858978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                        AZ796553 20 bp DNA linear GSS 16-FEB-2001 2M0052P15F Mouse 10kb plasmid UUGCIM library Mus musculus genomic clone UUGC2M0052P15 F, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AZ595570 19-bp DNA linear GSS 13-DEC-2000 1M0408I15F Mouse 10kb plasmid UUGCIM library Mus musculus genomic clone UUGCIM0408I15 F, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EST 31-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C00646 19 hp mRNA linear EST 31-
HUMGS0008192 Human adult (K.Okubo) Homo sapiens cDNA, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ch 1.5%; Score 12.4; DB 1; Length 19; I Similarity 92.9%; Pred. No. 6.7; 13; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 1.6%; Score 13.2; DB 1; Length 20; Best Local Similarity 83.3%; Pred. No. 5; Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 1.5%; Score 12.6; DB 1; Length 19; Best Local Similarity 78.9%; Pred. No. 6; Matches 15; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                  Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             492 GATCTAATTGGAGATTTGG 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  308 GCATGGGAAAGACTGCAG 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ||||||| ||| || || ||| ||| |||| GATCTAAGTGGTGGTGTATGG 19
                                                                                                                                                                                                                                                 AZ796553
AZ796553.1 GI:12944728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 GCAAGAGAAGAATGCAG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AZ595570.1 GI:11717760
          832
                                                    1 racrerecedecrea 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C00646
C00646.1 GI:1432876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      150 GCAGCTCCATACTT 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 GCAGCTCCAAACTT 14
          818 TACTGTGGGTGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AZ595570
                                                                                                                                                                                                                                                                                                GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST
```

KEYWORDS SOURCE ORGANISM

DEFINITION

AZ595570 RESULT 7

ð d ACCESSION VERSION

ORGANISM

KEYWORDS

RESULT 8 AZ623310/c

ઠે 셤

LOCUS DEFINITION

RESULT 6

C00646

ACCESSION

VERSION

EST 21-FEB-1996

o O

Gaps

. 0

ö

Gaps

ó

schu568-1.rst

```
CA796369.1 GI:26053445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CF332179.1 GI:33812582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             879 ATTGAGGTCCTGCAT 893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          936 TTTTGTTTTATGAGT 950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ATTGAGGACCTTTAT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 80.03
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                            236 CGTGGCTCAGCT 247
                536 CCCTCTTCTCGA 547
                                           1 cccrcrrcrrdA 12
                                                                                                                                                                                                                                                                                                                                                                                 12 CGTGGCTCAGTT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15
                                                                                           RESULT 15
BM399662/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 17
CF332179/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 16
CA796369
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                             셤
                                         g
                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13 bp mRNA linear EST 06-DEC-2002
E012680-024-020-D03-SP6 MPIZ-ADIS-024-storage root Beta vulgaris
EQS89768
BOS89768.1 GI:26119351
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RCL1--07-G18.g1 Regenerated callus lambda phage cDNA library (RCL1)
Oryza sativa cDNA clone RCL1--07-G18, mRNA sequence.
CP340244
ESP40244.1 GI:33828846
                                                                                                                                                                                                                      14 bp mRNA linear EST 17-JAN-2002 5009-0-35-C02.t.2 Chilcoat/Turkewitz cDNA (large fraction) Tetrahymena thermophila cDNA, mRNA sequence. BM397622
                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Beta vulgaris
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oryza sativa
Oryza sativa
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, Liliopsida, Poales, Poaceae,
Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 1.2%; Score 10.4; DB 1; Length 13; Best Local Similarity 91.7%; Pred. No. 6.6; Matches 11; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 1.4%; Score 11.4; DB 1; Length 14; Best Local Similarity 92.3%; Pred. No. 4.8; Matches 12; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match
Best Local Similarity 92.3%; Pred. No. 5.8;
Matches 12; Conservative 0; Mismatches 1; Indels
                                                               Query Match
1.4%; Score 11.8; DB 1; Length 16;
Best Local Similarity 86.7%; Pred. No. 5.7;
Matches 13; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                 Tetrahymena thermophila
Tetrahymena thermophila
Karyota; Alveolata; Ciliophora; Oligohymenophorea;
Hymenostomatida; Tetrahymenina; Tetrahymena.
                                                                                                                                                                                                                                                                                                    BM397622.1 GI:18197675
                                                                                                                              865 ATGAGCCCAACTCCA 879
                                                                                                                                                        1 ATGAGCCAAACTGCA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             237 GIGGCICAGCICT 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            242 TCAGCTCTTGAAG 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 TCAGCTCATGAAG 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14 GreecreAcerrr 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Beta vulgaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCUS
                     ORGANISM
                                                                                                                                                                                                          RESULT 12
BM397622/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                        LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 14
BQ589768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CF340244
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
15 bp mRNA linear EST 18-AUG-2003 NACL--08-J10.gl Rice callus plasmid cDNA library (NACL) Oryza sativa cDNA clone NACL--08-J10, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CA796369 15 bp mRNA linear EST 05-DEC-2002 Cac BL 3383 Cac_BL (Bean and Leaf from Amelonardo type Cacao) Theobroma cacao cDNA clone Cac_BL_3383 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                      .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Theobroma cacao (cacao)
Theobroma cacao
Theobroma yoridiplantae, Streptophyta, Embryophyta, Tracheophyta,
Spermatophyta, Magnoliophyta, eudicotyledons, core eudicots,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Orýza sativa
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                                                                      Gaps
BM399662
5009-0-6-G06.t.1 Chilcoat/Turkewitz cDNA (large fraction)
Tetrahymena thermophila cDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                   .,
                                                                                             BM399662.1 GI:1819715
BM399662.1 GI:1819715
EST.
Tetrahymena thermophila
Tetrahymena thermophila
Tetrahymena thermophila
Tetrahymena thermophila
Hwanostoa; Alveolata; Ciliophora; Oligohymenophorea;
                                                                                                                                                                                                                                                                                                                        Query Match 1.2%; Score 10.4; DB 1; Length 15; Best Local Similarity 91.7%; Pred. No. 10; Matches 11; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
1.2%; Score 10.2; DB 1; Length 15;
Best Local Similarity 80.0%; Pred. No. 11;
Matches 12; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.2%; Score 10.2; DB 1; Length 15; 80.0%; Pred. No. 11; arive 0; Mismatches 3; Indels
```

BM395984

11 bp mRNA linear EST 17-JAN-2002
5009-0-15-C03.t.1 Chilcoat/Turkewitz cDNA (large fraction)
Terrahymena thermophila cDNA, mRNA sequence.
BM395984.1 GI:18196037
EST.
Terrahymena thermophila
Terrahymena thermophila
Eukaryota; Alveolata; Ciliophora; Oligohymenophorea;
Hymenostomatida; Tetrahymenia; Tetrahymena. ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM 1 BM395984 LOCUS DEFINITION

Gaps . 0 Query Match
1.2%; Score 10; DB 1; Length 11;
Best Local Similarity 100.0%; Pred. No. 5;
Matches 10; Conservative 0; Mismatches 0; Indels

.; 0

596 CCGGTGGCGG 605 ||||||||||| 1 CCGGTGGCGG 10 ò Dp Search completed: July 29, 2004, 16:12:45 Job time : 1 secs

Copyright (17.35) 10.00	ACCESSION: AR262475 ACCESSION: AR282662 ACCESSION: AX697250 ACCESSION: AX697250 ACCESSION: AX837903 ACCESSION: AX837903 ACCESSION: AX8379106	ACCESSION: AX099903 ACCESSION: AX492797 ACCESSION: AX4196484 ACCESSION: AX411930 ACCESSION: AX6061991 ACCESSION: AX6061991	ACCESSION: AR206225 ACCESSION: AR204690 ACCESSION: AR204692 ACCESSION: AR402188	ACCESSION: AAA074110 ACCESSION: AAA074110 ACCESSION: AAR186776 ACCESSION: AAR118410	ACCESSION:143693 ACCESSION:143693 ACCESSION:AX095779 ACCESSION:AX244168 ACCESSION:A91362	ACCESSION: AR082145 ACCESSION: 125278 ACCESSION: AX111228 ACCESSION: AX269363 ACCESSION: AX26644	ACCESSION: AX262648 ACCESSION: AX262648 ACCESSION: AX262653 ACCESSION: AX262653	ACCESSION: AX272820 ACCESSION: AX272820 ACCESSION: AX228415 ACCESSION: AX294915 ACCESSION: AX294915 ACCESSION: AX294915	ACCESSION: AKASSOSOS ACCESSION: AKASOTOTO ACCESSION: AKX 708454 ACCESSION: ALTS 88527 ACCESSION: ALTS 8827	ACCESSION: AX056959 ACCESSION: AR121005 ACCESSION: AR130298 ACCESSION: AR156229 ACCESSION: AR154595 ACCESSION: AR154144	ACCESSION: BD272626 ACCESSION: B06733 ACCESSION: E40730 ACCESSION: E63806 ACCESSION: 1102471 ACCESSION: 114209 ACCESSION: 122523 ACCESSION: 122523	ACCESSION: AR21S889 ACCESSION: AR226092 ACCESSION: AR33333 ACCESSION: AR302586 ACCESSION: AR3107755 ACCESSION: AR312796
10 10 10 10 10 10 10 10		AX 99993 AX 492797 AX 796484 AX 411930 AX 61750 AX 61991										
14 14 15 15 15 15 15 15												
10 10 10 10 10 10 10 10	ਜਜਜਜਜਜਜ 									444444		444444
Inc. Michael Centors 1.0	11115.	H H H H H H H H H H H H H H H H H H H	44444	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		44444	2 6 C d C	2 4 10 10 10 10 10 10 10 10 10 10 10 10 10	001284		1 0 W 4 10 0 V 20 0	O-4 0, w 4 10 10
GenCore version 5.1.6	w w w w w w 4 4	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	្ ⁴ មេលសស	ստտտտւ	nuvvv	ωωωωω	00111				1 01 01 01 01 01 01 01 01	
	GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd nucleic search, using sw model	corp. 13:00:30 ; Section in the section of the sect	table: IDENTITY NUC Gapop 10.0 , Gapext 0.5 : 1256 seqs, 22942 residue	er of hits satisfying chosen parameters: 2 seq length: 8 seq length: 50	. Minimum Match 0% Maximum Match 100% Listing first 5000 summarie	: rgedb:* ed. No. is the number of results predicted by chance to have a ore greater than or equal to the score of the result being printe d is derived by analysis of the total score distribution.	SUMMARIES Query Match Length DB ID Descri	19 2.3 27 1 AR089960 ACCESSION:AR08919 2.3 27 1 AR196995 ACCESSION:AR198919 2.3 27 1 AR299149 ACCESSION:BD075308 ACCESSION:BD07	7.6 2.1 25 1 BD182961 ACCESSION: BD182 6.8 2.0 25 1 168670 ACCESSION: 16867 6.8 2.0 25 1 AR184032 ACCESSION: AR1840 6.6 2.0 25 1 AR34024 ACCESSION: AR1840 6.2 1.9 21 1 AX598398 ACCESSION: AR1840 6.2 1.9 22 1 AX763932 ACCESSION: AX7639	6.2 1.9 24 1 AX290382 ACCESSION:AX440 6.2 1.9 24 1 AX290382 ACCESSION:AX290 6.2 1.9 24 1 AX494042 ACCESSION:AX494 6.8 1.9 19 1 BD1777 ACCESSION:AX494 6.8 1.9 19 1 DGGELNA ACCESSION:L7735 6.8 1.9 20 1 A51174 ACCESSION:L7735	5.8 1.9 2.0 1 E14029 5.8 1.9 2.1 1 EX698187 ACCESSION:E1408 5.8 1.9 2.1 1 AX493377 ACCESSION:AX498 5.6 1.9 2.2 1 AX66356 ACCESSION:AX693 5.6 1.9 2.2 1 AX837848 ACCESSION:AX637 5.6 1.9 2.3 1 A04141 ACCESSION:AX837 5.6 1.9 2.3 1 A04141 ACCESSION:AX837 5.6 1.9 2.3 1 AR112992 ACCESSION:AR112 6.6 1.9 2.4 1 AR071192	5.6 1.9 24 1 AX445671 ACCESSION:AX445 5.4 1.8 20 1 AX361132 ACCESSION:AX3615 5.2 1.8 20 1 BD144749 ACCESSION:BD1447 5.2 1.8 20 1 BD090169 ACCESSION:AX697 5.2 1.8 20 1 BD090169 ACCESSION:BD19090 5.2 1.8 20 1 BD141108 ACCESSION:BD19145 5.2 1.8 20 1 BD176247 ACCESSION:BD19176

1001: AR3 8 11001: AR4 0 11001: AR4 3 11001: AR4 3	100 AR292 100 AR013 100 AR013 100 AR04 100 AR04 100 AR04 100 AR04 100 AR29 100 AR29 100 AR29 100 AR29 100 AR29	110N: AX0 96 110N: AX7 96 110N: BD0 85 110N: BD0 86 110N: AR7 96	ACCESTION: B49550 ACCESSION: B289550 ACCESSION: 113508 ACCESSION: 113508 ACCESSION: 149527 ACCESSION: 149527 ACCESSION: AR21394 ACCESSION: AR213173 ACCESSION: AR213173 ACCESSION: AR224734 ACCESSION: AR224734 ACCESSION: AR224734 ACCESSION: AR224734 ACCESSION: AR2323366 ACCESSION: AR232336 ACCESSION: AR232336 ACCESSION: AR232336 ACCESSION: AR232336 ACCESSION: AR232937 ACCESSION: AR232937 ACCESSION: AR232937 ACCESSION: AR23339506 ACCESSION: AR2329937 ACCESSION: AR3312995 ACCESSION: AR3312995 ACCESSION: AR3313506
			1 BD269550 1 113508 1 113508 1 124524 1 124526 1 120669 1 AR21139 1 AR21139 1 AR2113986 1 AR2113986 1 AR221998 1 AR224734 1 AR224734 1 AR232965 1 AR312995 1 AR313566 1 AR313566
			000000000000000000000000000000000000000
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		000 000 0
0000000000000	100 100	1100): AX22706 1100): AX27281 1100): AX27281 1100): AX72865 1100): AX7281 1100): AX7385 1100): AX73458 1100): AX73458 1100): AX73458 1100): AX73458 1100): AX73458 1100): AX73458 1100): AX73458 1100): AX76205 1100): AX76205 1100): AX76205 1100): AX76205 1100): AX76205 1100): AX76205 1100): AX76205 1100): AX76205	ACCESSION: ARL54250 ACCESSION: ARL54250 ACCESSION: AR298625 ACCESSION: AR298625 ACCESSION: AR2986274 ACCESSION: AR2826874 ACCESSION: AR124480 ACCESSION: AR147191 ACCESSION: AR17191 ACCESSION: AR17191 ACCESSION: AR17191 ACCESSION: AR176844 ACCESSION: BD249349 ACCESSION: BD249349 ACCESSION: AR182975 ACCESSION: AR182975 ACCESSION: AR182975 ACCESSION: AR229053
7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.			1.7 19 1 AR154250 1.7 19 1 AR295468 1.7 19 1 AR295468 1.7 19 1 AR295468 1.7 20 1 AR29625 1.7 20 1 AR163174 1.7 20 1 AR172173 1.7 20 1 AR182975 1.7 20 1 AR2071668 1.7 20 1 AR2071668 1.7 20 1 AR207166 1.7 20 1 AR207167 1.7 20 1 AR206098
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	**************************************	<u> </u>	வை வ
00 00 00 00 00 00 00 00 00 00 00 00 00	12222222222222222222222222222222222222	00044444444444000000000000000000000000	

ACCESSION: AX226092 ACCESSION: AX226099 ACCESSION: AX3940145 ACCESSION: BD08813 ACCESSION: BD08813 ACCESSION: BD168899 ACCESSION: AR108972 ACCESSION: AR108972 ACCESSION: AR108972 ACCESSION: AR108973 ACCESSION: AR28231 ACCESSION: AR28231 ACCESSION: AR28231 ACCESSION: AR282332 ACCESSION: AR2833326 ACCESSION: AX303079 ACCESSION: AX3030773 ACCESSION: AX304073	ACCESSION AR1339 ACCESSION AR1339 ACCESSION AR019144 ACCESSION AR031039 ACCESSION AR036674 ACCESSION AR036674 ACCESSION AR036671 ACCESSION AR05066 ACCESSION AR050392 ACCESSION AR100392 ACCESSION AR100392 ACCESSION AR100392
AX226092 AX226092 AX226209 AX2394078 AX394078 BD068199 BD168899 A21030	
	0000000000
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0
ACCESSION: AR315153 ACCESSION: AR316153 ACCESSION: AR361452 ACCESSION: AR361453 ACCESSION: ARX062308 ACCESSION: AXX062308 ACCESSION: AXX062309 ACCESSION: AXX062309 ACCESSION: AXX062309 ACCESSION: AXX136114 ACCESSION: AXX136114 ACCESSION: AXX11048 ACCESSION: AXX11009 ACCESSION: AXX11048 ACCESSION: AXX11009 ACCESSION: AXX11048 ACCESSION: AXX11048 ACCESSION: AXX11049 ACCESSION: AXX11049 ACCESSION: AXX11049 ACCESSION: AXX11049 ACCESSION: AXX11048 ACCESSION: AXX11049 ACCESSION: AXX11049 ACCESSION: AXX11044 ACCESSION: AXX1104	ACCESSION: AXX52849 ACCESSION: AXX52849 ACCESSION: AXX52849 ACCESSION: AXX542864 ACCESSION: AXX40876 ACCESSION: AXX40876 ACCESSION: AXX240876 ACCESSION: AXX240876 ACCESSION: AXX129476 ACCESSION: AXX129476 ACCESSION: AXX129486
20 1 AR315153 20 1 AR315153 20 1 AR3452628 20 1 AR364452 20 1 AX058348 20 1 AX058348 20 1 AX058349 20 1 AX263304 20 1 AX283404 20 1 AX283404 20 1 AX283404 20 1 AX286210 20 1 BDD0899998 20 1 BDD0899998 20 1 BDD0899998 20 1 BDD0899998 20 1 BDD42334 20 1 BDD42334 20 1 BDD42334 21 1 AX2866220 21 1 AX072344 22 1 1 AX266220 23 1 AX266220 24 17 1 AX266220 25 1 AX266220 26 1 BD142334 27 1 AX266220 28 1 AX286463 29 1 AX286463 20 1 AX328574 20 1 AX286520 20 1 AX328574 20 1 AX286520 21 1 AX266220 21 1 AX266220 22 1 AX286520 23 1 AX286520 24 17 AX286520 25 1 AX738657 26 1 AX738657 27 1 AX738657 28 1 AX738657 29 1 AX738657 20 1 AX73867 20 1 AX	
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	

The second secon

schu568-1.rge

ACCESSION: AR113474 ACCESSION: 157881 ACCESSION: BD207385 ACCESSION: BD208988		3 CO F	10	מז מי	TO T	חז ר	ro rr	0.7	ro r	A 10	rn	n rr	100	$r \cap r$	0.00	rn.	rn r	תז ת	ו מז ו	to ti	0.70	7 01	0.0	ro i	n rn	rn r	0.10	ED E	U tu	rn r	n rn	rn r	n rn	rn i	.U LV	חז	ro r	^ ~	ro.	rn ri	ח רח	70 7	רח רח		rn rc	· ΓΛ	rΛ
5 1 AR113474 5 1 157881 5 1 BD207385 5 1 BD208988	1 AX72	1 AX73	1 AX75	1 AX75 1 BD20	1 BD20	1 AR13	1 AR17	1 AX75	1 A573	1 AR06	1 AR08	1 AR12	1 AR16	1 BD22	1 AR22	1 AX03	1 AX19	AX29	1 AX32	1 BD18	1 AR047640	1 AR14	1 AR17	1 BD24	1 BD25	1 IS46	1 AR18	1 AR19	1 AR28	1 AR30	1 AR32	1 AR39	1 AX21	1 AX21	1 AX21	1 AX22	1 AX22	AX32	1 AX42	1 AX47	1 AX47	1 AX47	1 AX53	1 AX57	1 AX57	1 AX57	1 AX58
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	9.99	999	1.6	1.6	9.1.	1.6	9.1.	1.6	7.6	9.6	1.6	1.6	.6.0	1.6	9.6	1.6	1.6	9.1.	1.6	9.1.	1.5 1.5	1.5	2.5	1.5	 	1.5	2.7	1.5	 	1.5	м с. Н Н	1.5	7. T.	1.5	7.5	1.5	1.5	 	1.5	1.5	1.5	1.5	2.7	1.5	2.1.5	1.5	1.5
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	477	479	481	482 483	Нг	1 11			1 ~ 1		493	494		497	498 499	•	501		504	505	12.	508 12.	12.	511 12.	12.	12.	2 5	517 12.	12.	520 12.	122	523 12.	12.	526 12.	527 12.	529 12.	530 12.	537 12.	12.	534 12.	535 12. 536 12.	537 12.	538 12.	540 12.	42	543 12.	544 12.
ACCESSION: AR124013 ACCESSION: AR126707 ACCESSION: AR129617 ACCESSION: AR129617	CCESSION: AR16	CCESSION: ARIS	CCESSION: BD22	CCESSION: BD23 CCESSION: BD27	CCESSION: BD27	CCESSION: BD2/	CCESSION: E290	CCESSION: E290 CCESSION: E290	CCESSION: 1446	SION: AR20	CCESSION: AR22	CCESSION: AR22	CCESSION: AR24	CCESSION: AR27	CCESSION: AR29	CCESSION: AR31	CCESSION: AR31	CCESSION: AR31	CCESSION: AR34	CCESSION: AR35	CCESSION:AR36 CCESSION:AR37	CCESSION: AR43	CCESSION: AR43	CCESSION: AX03	CCESSION: AX13	CCESSION: AX29	CCESSION: AX29	CCESSION: AX35	CCESSION: AX35	CCESSION: AX37	CCESSION: AX38	CCESSION: AX48	CCESSION: AX48 CCESSION: AX64	CCESSION: AX64	CCESSION: AX64	CCESSION: AX81	CCESSION: BD01	CCESSION: BD06	CCESSION: BD08	CCESSION: BD08	CCESSION:BD10 CCESSION:BD13	CCESSION: BD13	CCESSION: BD19	CCESSION: BDZI CCESSION: L774	SION: AB06	CCESSION: ABOO	CCESSION: AR03
1 AR121013 1 AR126707 1 AR129617 1 AR130530	ARISO ARI62	AR173	BD227	BD237650 BD270109	BD272	E1456	E2905	E2905	14464	AR208	AR224	AR225	AR232	AR271	AR299	AR313	AR314	AR315	AR338 AR342	AR359	AR366	AR431	AR437	AX038	AX139	AX293	AX296	AX353	AX354	AX377	AX384	AX488	AX488	AX645	AX645	AX 812	BD013	BD062	BD088	BD089	BD106	BD138	BD196	BDZIB	AB068605	AB069	AR033
1.6	و بو ر	، به به	۰. %	ب ب	9.	ب ب	٠٠٠	9 9	. 9.	9.	. 9.	9.	و د	9.	9.	ب ب	. 9.	ب ب	و به		ωv	· •	w. w	p 49.	φ.		w. w	. 4.	٠.	9. 9.	9.4	9. 4.	ب بو	. 4.	بو	و و	9.	ب ب	ب م	9.	ب بو	. 4.	9.	۰. ب		w.u	o 40
22222	700		3.5	2.0	20.0	2.5	2.5	0 C	3.5	3.2	3.5	3.2	2.5	3.2	2.0	v ()	3.5	3.5	7 C	.5	6 c	3.5	2.5	2.0	2.5			. cz	2.5	3.5	2.5	3.5	 	3.6	3.2	2.5	3.5		4 L	3.5	6 c	. c.	2.0	N N	101	3.2	
C 399 C 400 C 401	440	00	4 4	0 -	4.4	4 4	4.	α-		Ч.	ન જા	(3)	4, 4	42	20	4 4	. 4	2	4 4	m	mm	rm r	m c	4.3	m 5	44	44	4 4	44	4	44	1.4	വ	വം	LO L	വര	l R	LO L	4 4 U A	46	w w	4 4	46	4 4	468	46	+ +

ACCESSION: AX130931 ACCESSION: AX131099 ACCESSION: AX131315 ACCESSION: AX132386 ACCESSION: AX132386 ACCESSION: AX132386 ACCESSION: AX3326918 ACCESSION: AX352905 ACCESSION: AX35270	ACCESSION: AX427086 ACCESSION: AX670884 ACCESSION: AX686566 ACCESSION: BD089465 ACCESSION: BD174184 ACCESSION: BD18139	ACCESSION ABOUG 7928 ACCESSION A1508 ACCESSION A24325 ACCESSION ARCHA7 ACCESSION ARCHA725 ACCESSION ARCHA726 ACCESSION BD233042 ACCESSION BD233042 ACCESSION BD233042	ACCESSION: 174397 ACCESSION: 176397 ACCESSION: 186145 ACCESSION: 186145 ACCESSION: 186239 ACCESSION: AR254740 ACCESSION: AR2579147 ACCESSION: AR297296 ACCESSION: AR297296	ACCESSION: AXI.29417 ACCESSION: AXI.29418 ACCESSION: AXI.29418 ACCESSION: AXI.29568 ACCESSION: AXI.31249 ACCESSION: AXI.31249 ACCESSION: AXI.31249 ACCESSION: AXI.31549 ACCESSION: AXI.31563 ACCESSION: AXI.31563 ACCESSION: AXI.35603 ACCESSION: AXI.35603 ACCESSION: AXI.35603 ACCESSION: AXI.35603 ACCESSION: AXI.35603	ACCESSION AX428625 ACCESSION AX676166 ACCESSION: AX700103 ACCESSION: AX770834 ACCESSION: AX777577 ACCESSION: AX777577 ACCESSION: AX815849 ACCESSION: AX815849 ACCESSION: AX815849 ACCESSION: AX815849 ACCESSION: AX815849 ACCESSION: AX88669 ACCESSION: AX88669 ACCESSION: AX88669 ACCESSION: AX86869	ACCESSION: AX763932 ACCESSION: AX282865 ACCESSION: BD203 816 ACCESSION: AR344485 ACCESSION: AX344485 ACCESSION: AX344485 ACCESSION: A88036 ACCESSION: A88036 ACCESSION: A880303 ACCESSION: A880303 ACCESSION: 124585 ACCESSION: I61705 ACCESSION: I61705
	AX42708 1 AX67088 1 AX68656 1 BD08946 1 BD17418 1 BD18513	1 AB06/92 1 A15088 1 A25088 1 A97747 1 A878170 1 AR14272 1 BD23304 1 E293304	121087 1 176187 1 186185 1 186239 1 186239 1 1872832474 1 1872832474 1 18729314	1 AXX0759 1 AXX2941 1 AXX2956 1 AXX3073 1 AXX3124 1 AXX3124 1 AXX31250 1 AXX3350 1 AXX3360 1 AXX34601	1 AX428625 1 AX676166 1 AX7700103 1 AX770834 1 AX770834 1 AX806030 1 AX806030 1 AX806030 1 BD084866 1 BD084869 1 AB089475 1 AB069475 1 AX669475	AX76393 1 AR28286 1 BD528266 1 AR34448 1 AR84830 1 A88036 1 A88030 1 A89206 1 A99003 1 A91073 1 I61705
нининини	ІАААААА,	+ + + + + + + + + + + + + + + + + + + +	16666666666666666666666666666666666666		20000000000000000000000000000000000000	ІХОННННННННН ""
,			•			
0 000 0000 11000 00000 00010000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	οσοσφοσοσι	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο ο
0000000000	9999999	200000000000	20000000000000	20000000000000	ACCESSION: AR412054 ACCESSION: AR412054 ACCESSION: AX2020786 ACCESSION: AX11962 ACCESSION: AX175441 ACCESSION: AX175441 ACCESSION: AX27085 ACCESSION: AX710562 ACCESSION: AX710562 ACCESSION: AX710562 ACCESSION: AX718779 ACCESSION: AX718779 ACCESSION: AX718779 ACCESSION: AX822183 ACCESSION: AX822183 ACCESSION: AX822183 ACCESSION: AX822183	
AX65 7 1 AX67 7 1 AX67 7 1 AX67 7 1 AX68 7 1 AX68 7 1 AX72	AX72	AX73	7. 1 AX76 7. 1 AX76 7. 1 AX76 7. 1 BD103 8. 1 AX051 8. 1 AR07 8. 1 AR07 8. 1 AR07	ARLIA ARLIA ARLIA ARLIA ARLIA ARLIA BE 1 ARL	8 1 AX412054 8 1 AX220786 8 1 AX1118062 8 1 AX118606 8 1 AX175441 8 1 AX4270476 8 1 AX427085 8 1 AX710562 8 1 AX10579 8 1 AX105	8 1 BD00 9 1 AR06 9 1 E36E 9 1 E36E 9 1 AR29 9 1 AR29 9 1 AR29 1 AR29 1 AR29 1 AR29
н наннанан	пппппп	ੀਰਰਰਰਰ	ч <i>н</i> ннннн	тепппппппп		तनत्त्त्त्त्त्त्त्त्
œ. œ. œ. œ. œ. œ. œ. œ. œ.				က်တံတ်တ်ထုတ်တတ တတ တ		
	н ннннн	14444444 1	чанананаа	[†] ннннннннн		तनत्त्त्त्त्त्त्
0 00 00 0 442 00 00 0 144 00 00 00 0))	0 00000 000000000000000000000000000000	

CONSTRICTION CONSTRICTION TAGE 12.4 1.5 1.7 1 MAZZED TAGE ACCESSION, MAGGEST A CONTRACTOR TAGE 1.2 1.5 1.7 1 MAZZED TAGE ACCESSION, MAGGEST A CONTRACTOR TAGE 1.2 1.5 1.7 1 MAZZED TAGE ACCESSION, MAGGEST A CONTRACTOR TAGE 1.2 1.5 1.7 1 MAZZED TAGE ACCESSION, MAGGEST A CONTRACTOR TAGE 1.2 1.5 1.7 1 MAZZED TAGE ACCESSION, BEDINGORD CONTRACTOR TAGE 1.2 1.5 1.7 1 MAZZED TAGE ACCESSION, BEDINGORD CONTRACTOR TAGE 1.2 1.5 1.7 1 MAZZED TAGE ACCESSION, BEDINGORD CONTRACTOR TAGE 1.2 1.5 1.7 1 MAZZED TAGE ACCESSION, BEDINGORD CONTRACTOR TAGE 1.2 1.5 1.7 1 MAZZED TAGE ACCESSION, BEDINGORD CONTRACTOR TAGE 1.2 1.5 1.7 1.7 1.7 1.7 1.7 </th <th>ACCESSION: AX727518 ACCESSION: AX728076 ACCESSION: AX728977</th> <th>ACCESSION: AX730565 ACCESSION: AX731804</th> <th>ACCESSION: AX733988</th> <th>ACCESSION: AX 735372 ACCESSION: AX736065</th> <th>ACCESSION: AX736910</th> <th>ACCESSION: AX738868</th> <th>ACCESSION: AX745126</th> <th>ACCESSION: AX745128</th> <th>ACCESSION: AX745129</th> <th>ACCESSION: AX759726</th> <th>ACCESSION: AX / SINAZ</th> <th>ACCESSION: AX783686</th> <th>ACCESSION: AX783687</th> <th>ACCESSION: AX783688</th> <th>ACCESSION: AX783689</th> <th>ACCESSION: BD067575</th> <th>ACCESSION: ARO4 2292</th> <th>ACCESSION: ARCHAUGN</th> <th>ACCESSION: AKOODAL4</th> <th>ACCESSION: PRISOUSI</th> <th>ACCESS TO THE SECOND</th> <th>ACCESSION: 166343</th> <th>ACCESSION: 1/2050</th> <th>ACCESSION: 1/2443</th> <th>ACCESSION: I/2440</th> <th>ACCESSION: I / 2449</th> <th>ACCESSION: I /34 32</th> <th>ACCESSION: ACTORONS</th> <th>ACCESSION: FRECT / 23</th> <th>ACCESSION: ARKOUGHES</th> <th>ACCESSION: AR229578</th> <th>ACCESSION: AK229579</th> <th>ACCESSION:AK234548</th> <th>ACCESSION: AR236683</th> <th>ACCESSION: ARZ64364</th> <th>ACCESSION: AK2928II</th> <th>ACCESSION: AKZUSO4 /</th> <th>ACCESSION: ARESISSION S</th> <th>ACCESSION: ARSOLOSES</th> <th>PACAGO TON PACAGO AND PACAGO AND</th> <th>ACCESSION: AX076198</th> <th>ACCESSTON: AX207873</th> <th>ACCESSION: AX352808</th> <th>ACCESSION: AX352809</th> <th>ACCESSION: AX352833</th> <th>ACCESSION: AX352848</th> <th>ACCESSION: AX362653</th> <th>ACCESSTON AX362654</th> <th>ACCESSION: AX362678</th> <th>ACCESSION: AX362693</th> <th>ACCESSTON: AXS99342</th> <th>ACCESSION: AX637742</th> <th>ACCESSTON AX643994</th> <th>ACCESS TON - AX 6 2 94 1</th> <th>ACCESSION: AX753071</th> <th>ACCESSION: AX769947</th> <th>ACCESSION AX796216</th> <th>ACCEDITION - BD222561</th> <th>ACCESSEON : EDSESSON</th> <th>ACCESSED NO. MOE JOS</th> <th>ACCESS TON: NOTON A</th> <th>ACCESSION: ANOTAS NO</th> <th>ACCESSION: AND SOLD</th> <th>ACCESSION: ARLOLICE</th> <th>ACCESSION: AKIU3165</th>	ACCESSION: AX727518 ACCESSION: AX728076 ACCESSION: AX728977	ACCESSION: AX730565 ACCESSION: AX731804	ACCESSION: AX733988	ACCESSION: AX 735372 ACCESSION: AX736065	ACCESSION: AX736910	ACCESSION: AX738868	ACCESSION: AX745126	ACCESSION: AX745128	ACCESSION: AX745129	ACCESSION: AX759726	ACCESSION: AX / SINAZ	ACCESSION: AX783686	ACCESSION: AX783687	ACCESSION: AX783688	ACCESSION: AX783689	ACCESSION: BD067575	ACCESSION: ARO4 2292	ACCESSION: ARCHAUGN	ACCESSION: AKOODAL4	ACCESSION: PRISOUSI	ACCESS TO THE SECOND	ACCESSION: 166343	ACCESSION: 1/2050	ACCESSION: 1/2443	ACCESSION: I/2440	ACCESSION: I / 2449	ACCESSION: I /34 32	ACCESSION: ACTORONS	ACCESSION: FRECT / 23	ACCESSION: ARKOUGHES	ACCESSION: AR229578	ACCESSION: AK229579	ACCESSION:AK234548	ACCESSION: AR236683	ACCESSION: ARZ64364	ACCESSION: AK2928II	ACCESSION: AKZUSO4 /	ACCESSION: ARESISSION S	ACCESSION: ARSOLOSES	PACAGO TON PACAGO AND	ACCESSION: AX076198	ACCESSTON: AX207873	ACCESSION: AX352808	ACCESSION: AX352809	ACCESSION: AX352833	ACCESSION: AX352848	ACCESSION: AX362653	ACCESSTON AX362654	ACCESSION: AX362678	ACCESSION: AX362693	ACCESSTON: AXS99342	ACCESSION: AX637742	ACCESSTON AX643994	ACCESS TON - AX 6 2 94 1	ACCESSION: AX753071	ACCESSION: AX769947	ACCESSION AX796216	ACCEDITION - BD222561	ACCESSEON : EDSESSON	ACCESSED NO. MOE JOS	ACCESS TON: NOTON A	ACCESSION: ANOTAS NO	ACCESSION: AND SOLD	ACCESSION: ARLOLICE	ACCESSION: AKIU3165
N. M.	AX727518 AX728076 AX729977	AX730565 AX731804	AX733988	AX/353/2 AX736065	AX736910	AX738868	AX745126	AX745128	AX745129	AX759726	AX 761942	AX783686	AX783687	AX783688	AX783689	BD067575	AR042292	AR04569	ARU65914	AK130051	17.778	166343	172050	172445	172446	172449	173492	AK192809	AR201/99	AR203423	AR229578	AR229579	AR234548	AR236683	AR264364	AR292811	AR293647	AK293865	AK3UZBIB	AK326555	7.00 T T T T T T T T T T T T T T T T T T	AX207873	AX352808	AX352809	AX352833	AX352848	AX362653	22222222	AX362634	2 X 3 C 3 C 3 C 3 C 3 C 3 C 3 C 3 C 3 C 3	112000340	DX637742	700077	TO COUNT	12002044	AX769947	75000	98218	DD22200	MULINO & 6	ABZILS	ARU72796	AR075581	AR102121	77102107
NN.XXZ323176 NN.XXZ32242 NN.XXZ32242 NN.XXZ32242 NN.XXZ32242 NN.XXZ32242 NN.XXZ32245 NN.XXZ32345 NN.XXZ3335 NN.XXZ3335 NN.XXZ3335 NN.XXZ3335 NN.XXZ33335 NN.XXZ33333 NN.XXZ333	L L L L		L 1		r 1		٠,		7	7	٠,		7	7	7	۲,	.	20 (20 0	20 (o o	ω,	ω (ω,	ω ,	ω ,	00 0	.	00	φ	۵	ω .	œ	φ.	ω,		00 0	00 0	000	0 0	οα	α	ο α	œ	α	α		οα) a	o a	α	. 0		οα	σ) a	0 0	0 0	0 0	n c	o n (on .	יוס	a
NX.AX3.39176 NX.AX3.28242 NX.AX3.28242 NX.AX3.28242 NX.AX3.28242 NX.AX3.28243 NX.BD0.65549 NX.BD0.65549 NX.BD0.65549 NX.BD0.65549 NX.BD0.65549 NX.BD0.65549 NX.AX3.28366 NX.AX3.8836 NX.AX3.8836 NX.AX3.8836 NX.AX3.8836 NX.AX3.8836 NX.AX3.883																						٠	٠					•	•	٠		٠						•			•							٠	•	٠	٠		٠	•	•	•	•		•	•	٠	•	•	•	
NN: AXX139176 NN: AXX238242 NN: AXX36174 NN: AXX36174 NN: BD1065519 NN: BD1065519 NN: BD1065519 NN: BD1065519 NN: BD1065519 NN: BD1065519 NN: AX328160 NN: AX3281	0000	4 0		2 0	0,0		200	,	i N		N C	, N	2	α.	ς.	ς.		N 1	N (N ('n	N	oi ('n		ď															, ,	; c					1 C	, c	, c	• •	;,													
NN: AX139176 NN: AX228242 NN: AX228242 NN: AX238242 NN: AX238242 NN: AX238242 NN: BD065519 NN: BD065519 NN: BD065519 NN: BD065719 NN: AX228546 NN: AX2285613 NN: AX228625 NN: AX2382863 NN: AX2382865 NN: AX2382865 NN: AX238286 NN: AX238286	764 765 766	767 768	769	770	772	774	775	777	778	779	780	782	783	784	785	786	787	788	789	790	16/	792	793	794	795	796	797	798	799	800	801	802	803	804	805	908	807	808	608	0 T C	100	7 6) t	י ני ני	816	7 1 8	, a	0 0	0 0 0	200	1 (222	0 0 0	# L	070	0 6 0	7 0	9 0	87.0	330	831	832	833	834	
	N: AX13917 N: AX32824 N: AX63617	N: AX63617	N: BD06554	N: BD06571	N: BD18863	N: BD20898	N: A66854	N: AK08088	N: AR21160	N: AR32854	N: AR32854	N: AX32835	N: A66883	N: AR15848	N: BD24111	N: BD25447	N: BD25465	N:BD25465	N: BD25489	≈ :	ᅒ	≈.	=	N: 146492	N:AR28600	N: AR28609	N:AR28613	N: AR28625	N:AR28629	N: AR32774	N: AR39799	N: AR39808	N: AR39812	N: AR39824	N: AR39828	N: AR40207	N: AX21497	N: AX26482	N: AX26482	N:AX42186	N: AX4 2202	N: AK42203	N. PASSOS	1000 TANG . NO	0 X 4 2 3 3 9	M. AYE 7825	M. NYEGOTON	070/074:11	N. PASTON	TOUR LAND LAND	COLUMN IN	M. AVC1803	A SACTORS	N:AXBISSS	N: AX6 / 3 U.	N: AX6 /434	N: AA6 /45 /	N: AX6 7452	N: AX68011	N: AX68871	N: AX68871	N: AX69041	N: AX69803	N: AX72276	
	10 10 10	IO N	n LO	no n	ומו	ດເດ	\ O 1	o u		w	. ب	o u			7	7	^	7	7	7	^	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		- 1	- 1	٦ -	- 1	٠ ,	٠,	٠,	<u>- 1</u>	٠,	٠,	- 1	_	_	- 1	- 1	- 1	_	_	7	7	7	7	7	.
											•						•	•	•	•	•		•	•	•		•	•	•	•			•	٠				•	•	٠	٠	٠		٠	•	•	•	٠	٠	•	•	•	٠	٠	•	•	•	•	•	•	•	•		•	•
000000000000000000000000000000000000000	0.00	2.0		٠. د		, N		, ,	•	ď.	ď	oi c			ď	ζ.	ζ.	ď.	ď	ď.	'n	ď	ď.	ď.	ď	ď.	ď.	ď	ď	ď	ď	ď	ď	o,	ď.	ď	ď.	ď	ĸ.	ď	oi.	ά,	N O	, i	v c	• •	, i	v.	ά,	'n.	· 1		S.	'n	ά,	∾.	'n.	'n	ď.	ς.	ά.	ς.	α.	ď.	:
ស ស ស ស ស ស ស ស ស ស ស ស ស ស ស ស ស ស ស	ਰਜ ਜ	П.																																																															

SSION: AR3 SSION: AR4 SSION: AR4 SSION: AR4 SSION: AR4 SSION: AR4 SSION: AX0 SSION: AX0	SSION: AX21 SSION: AX21 SSION: AX21 SSION: AX21 SSION: AX21 SSION: AX21	SSION: AX26 SSION: AX26 SSION: AX27 SSION: AX41 SSION: AX42 SSION: AX42 SSION: AX42 SSION: AX42	SSION: AX42 SSION: AX45 SSION: AX45 SSION: AX47 SSION: AX47 SSION: AX47 SSION: AX49 SSION: AX49 SSION: AX49	SSION: AXSSION: AXSSI	ACCESSION: AX615882 ACCESSION: AX615883 ACCESSION: AX615883 ACCESSION: AX634557 ACCESSION: AX648309 ACCESSION: AX648309 ACCESSION: AX649526 ACCESSION: AX649525 ACCESSION: AX649525 ACCESSION: AX649525 ACCESSION: AX649525 ACCESSION: AX677291 ACCESSION: AX677291 ACCESSION: AX677291 ACCESSION: AX677291 ACCESSION: AX677291 ACCESSION: AX6772829 ACCESSION: AX6772829 ACCESSION: AX6772830 ACCESSION: AX6772830	SSION: AX67
910 12.2 1.5 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22 12.2 1.5 17 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	930 931 12.2 932 12.2 13.5 14.1 934 12.2 13.5 14.1 15.1 17.1 18.1 19.1 936 12.2 13.5 14.1 15.1 17.1 18.1 19.1	39 12.2 1.5 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	550 12.2 1.5 1.7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	99999999999999999999999999999999999999	80 12.2 1.5 17 1 18 12.2 1.5 1.7 1 18 12.2 1.5 1.7 1
SSION:E02999 SSION:E07051 SSION:E07061 SSION:117267 SSION:127041 SSION:AX00118 SSION:AX1084 SSION:AX13064 SSION:AX13064		SSION: BD16612 SSION: BD18224 SSION: BD1826864 SSION: AA06795 SSION: AA74512 SSION: AA20708 SSION: AA3027 SSION: AA3027	SSION SSION	SSION: 1.236.20 SSION: 1.336.20 SSION: 1.5280.1 SSION: 1.861.50 SSION: 1.861.50 SSION: 1.862.44 SSION: ARL89.66 SSION: ARL89.66 SSION: ARL89.67 SSION: ARL89.27 SSION: ARL89.22	ACCESSION: AR.195711 ACCESSION: AR.196711 ACCESSION: AR.2965 ACCESSION: AR.28656 ACCESSION: AR.286533 ACCESSION: AR.28633 ACCESSION: AR.28633 ACCESSION: AR.23392 ACCESSION: AR.22392 ACCESSION: AR.22392 ACCESSION: AR.22392 ACCESSION: AR.225817 ACCESSION: AR.225817 ACCESSION: AR.227302	SSION: AR39061 SSION: AR39322 SSION: AR39795

The special of the sp

ACCESSION: AX758611 ACCESSION: AX758614 ACCESSION: AX758732 ACCESSION: AX758732 ACCESSION: AX758731 ACCESSION: AX758737 ACCESSION: AX760039 ACCESSION: AX760039 ACCESSION: AX760133 ACCESSION: AX760133 ACCESSION: AX760136 ACCESSION: AX760136 ACCESSION: AX761193 ACCESSION: BD067429 ACCESSION: BD067429 ACCESSION: BD067429 ACCESSION: BD067429 ACCESSION: BD067429 ACCESSION: AX761193 ACCESSION: BD067429 ACCESSION: AX761193 ACCESSION: AX7611907 ACCESSION: AX7611900 ACCESSION: AX106986 ACCESSION: AX106987 ACCESSION: AX108987 ACCESSION: AX108987 ACCESSION: AX108987 ACCESSION: AX108987 ACCESSION: AX108986 ACCESSION: AX108986 ACCESSION: AX108987 ACCESSION: AX108986 ACCESSION: AX108987 ACCESSION: AX108986 ACCESSION: AX108986 ACCESSION: AX108986 ACCESSION: AX108986 ACCESSION: AX108986 ACCESSION: AX108986 ACCESSION: AX1089897 ACCESSION: AX1089997 ACCESSION: AX108999999999999999999999999999999999999	ACCESSION: AX074443 ACCESSION: AX111615
AX758612 12.2 1.5 17 AX758614 10.55 12.2 1.5 17 AX758614 10.55 12.2 1.5 17 AX758614 10.55 12.2 1.5 17 AX758722 10.55 12.2 1.5 17 AX758722 10.55 12.2 1.5 17 AX758724 10.55 10.5	12.2 1.5 18 1 AXXXV444 12.2 1.5 18 1 AXXXV444 12.2 1.5 18 1 AXXII61
ACCESSION: AX673404 ACCESSION: AX687549 ACCESSION: AX687549 ACCESSION: AX687549 ACCESSION: AX687551 ACCESSION: AX687551 ACCESSION: AX6886426 ACCESSION: AX6886426 ACCESSION: AX6886426 ACCESSION: AX6886426 ACCESSION: AX6886426 ACCESSION: AX6886426 ACCESSION: AX691830 ACCESSION: AX691830 ACCESSION: AX691830 ACCESSION: AX691830 ACCESSION: AX723413 ACCESSION: AX723414 ACCESSION: AX723413 ACCESSION: AX733136 ACCESSION: AX733339 ACCESSION: AX733234 ACCESSION: AX733333 ACCESSION: AX7333333 ACCESSION: AX7333333 ACCESSION: AX7333333 ACCESSION: AX7333333 ACCESSION: AX73333333 ACCESSION: AX7333333333333333333333333333333333333	AX757 AX757 AX758
12.2 1.5 1.7 AX673484 12.2 1.5 1.7 AX684333 12.2 1.5 1.7 AX684333 12.2 1.5 1.7 AX684333 12.2 1.5 1.7 AX684333 12.2 1.5 1.7 AX689250 12.2 1.5 1.7 AX689250 12.2 1.5 1.7 AX689230 12.2 1.5 1.7 AX689230 12.2 1.5 1.7 AX689330 12.2 1.5 1.7 AX689330 12.2 1.5 1.7 AX72303 12.2 1.5 1.7 AX73303 12.2 1.5 1.7 AX733033 12.2 1.5 1.7 AX733033 12.3 1.5 AX733033 13.3 1.5 AX733	12.2 1.5 17 1 AX75716 12.2 1.5 17 1 AX75785 12.2 1.5 17 1 AX75818
$\begin{smallmatrix} 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 &$	C105 105

ACCESSION:AR364935 ACCESSION:AX217296 ACCESSION:AX217765 ACCESSION:AX218023	ACCESSION: AX218237 ACCESSION: AX218238 ACCESSION: AX218239	ACCESSION: AX218240 ACCESSION: AX218280	ACCESSION: AX218281 ACCESSION: AX422190 ACCESSION: AX422812	ACCESSION: AX423040 ACCESSION: AX423428	ACCESSION: AX423450 ACCESSION: AX423780	ACCESSION: AX423/81 ACCESSION: AX427088	ACCESSION: AX648/53 ACCESSION: AX648754 ACCESSION: AX648755	ACCESSION: AX648756	ACCESSION: AX648758	ACCESSION: AX690409	ACCESSION: AX726672	ACCESSION: AX 729303 ACCESSION: AX729303	ACCESSION: AX732200	ACCESSION: AX736634	ACCESSION: AX/39164 ACCESSION: AX739188	ACCESSION: AX757743	ACCESSION: AX759752 ACCESSION: AX752816	ACCESSION: AX783690 ACCESSION: AX783691	ACCESSION: BD087511 ACCESSION: BD222807	ACCESSION:AR055760 ACCESSION:AR073056	ACCESSION: AR084052 ACCESSION: AR153855	ACCESSION: BD250669 ACCESSION: B30569	ACCESSION: 1361/2 ACCESSION: AR192915	ACCESSION: AR201850	ACCESSION: AKZU3413 ACCESSION: AKZU3413	ACCESSION: AR268857 ACCESSION: AR326657	ACCESSION: AK419771	ACCESSION: AX427089 ACCESSION: AX440575	ACCESSION: BD085033	ACCESSION: BD088461	ACCESSION: BD009333 ACCESSION: AB069330 ACCESSION: E33117	ACCESSION: AX272822 ACCESSION: BD089918 ACCESSION: 121087	
1202 12 1.4 17 1 AR364935 1203 12 1.4 17 1 AX217296 1204 12 1.4 17 1 AX217765 1205 12 1.4 17 1 AX218023	206 12 1.4 17 1 207 12 1.4 17 1 208 12 1.4 17 1	209 12 1.4 17 1 210 12 1.4 17 1	211 12 1.4 17 1 212 12 1.4 17 1 213 12 1.4 17 1	214 12 1.4 17 1 215 12 1.4 17 1	216 12 1.4 17 1	219 12 1.4 17 1	221 12 1.4 17 1 221 12 1.4 17 1	223 12 1.4 17 1	225 12 1.4 17 1	227 12 1.4 17 1	229 12 1.4 17 1	230 12 1.4 17 1	233 12 1.4 17 1	235 12 1.4 17 1	237 12 1.4 17 1	239 12 1.4 17 1	241 12 1.4 17 1	243 12 1.4 17 1 244 12 1.4 17 1	245 12 1.4 17 1 246 12 1.4 17 1	247 12 1.4 18 1 248 12 1.4 18 1	249 12 1.4 18 1 250 12 1.4 18 1	251 12 1.4 18 1 252 12 1.4 18 1	253 12 1.4 18 1 254 12 1.4 18 1	256 1.4 1.0 L	257 12 1.4 18 1 258 12 1.4 18 1	259 12 1.4 18 1 260 12 1.4 18 1	262 12 1.4 18 1	263 12 1.4 18 1 264 12 1.4 18 1	266 12 1.4 18 1	268 12 1.4 18 1	270 12 1.4 18 1 271 12 1.4 18 1 271 12 1.4 23 1	72 11.8 1.4 17 1 73 11.8 1.4 18 1 74 18 1	1
ACCESSION: AX116431 ACCESSION: AX21936B ACCESSION: AX282820 ACCESSION: AX297697	CCESSION: AX342472 CCESSION: AX378528 CCESSION: AX398015	CCESSION: AX403643 CCESSION: AX455431	CCESSION: AX456731 CCESSION: AX465584 CCESSION: AX599241	CCESSION:AX599369	CCESSION: AX642594 CCESSION: AX705541	CCESSION: AX 705543	CCESSION: AX/1851/ CCESSION: AX/1852 SEGGET ON: AX/1652	CCESSION: AX / 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 /	CCESSION: AX 196255 CCESSION: AX 815551	CCESSION: AAO22/33 CCESSION: AAO22/33 CCESSION: AXO2004	CESSION: AX838191	CCESSION: BD089682 CCESSION: BD089918	CCESSION: BD09485X CCESSION: BD104004	CCESSION: BD104028	CCESSION: BD21/453	CCESSION: ABOOS#0/ CCESSION: ABOOS#43	CCESSION: 15100 CCESSION: 151060 CTESSION: 151060	CCESSION: AS169361 CCESSION: AR169361 CCESSION: AR169363	CCESSION: BD209298 CCESSION: AR033651	CCESSION: AR033653 CCESSION: AR113473	CCESSION: AR113475 CCESSION: 157880	CCESSION:157882 CCESSION:161796	CCESSION: AR300202 CCESSION: AX636155	CCESSION: BD103922	CCESSION: BD207386 CCESSION: BD208989	CCESSION: AR008570 CCESSION: AR242883	CCESSION: AX384935 CCESSION: AX758614	CCESSION: AR072247 CCESSION: AR153869	CCESSION: AAI64696	CCESSION: BDZ34430 CCESSION: 126358	CCESSION:136186 CCESSION:AR218660 CCESSION:AR223075	AR229837 AR262093 AR344531	
12.2 1.5 18 1 AX116431 12.2 1.5 18 1 AX119568 12.2 1.5 18 1 AX282820 12.2 1.5 18 1 AX297697	2.2 1.5 18 1	2.2 1.5 18 1 2.2 1.5 18 1	2.2 1.5 1.8 1	2.2 1.5 1.8 1	2.2 1.5 18 1	2.2 1.5 1.8 1	2.2 1.5 1.8 1	2.2 1.5 1.8 1.	2.2 1.5 18 1	2.2 1.5	2.2 1.5 18 1	2.2 1.5 18 1	2.2 1.5 18 1	2.2 1.5	2.2 1.5 18 1	2.2 1.5 18 1	2.2 1.5 1.9 1	2 1.4 14 1	2 1.4 14 1	1.4 15 1	2 1.4 15 1	2 1.4 15 1 2 1.4 15 1	2 1.4 15 1	2. 1.4 1.4 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	2 1.4 15 1 2 1.4 15 1	2 1.4 16 1	2 1.4 16 1 2 1.4 17 1	2 1.4 17 1	2 1.4 17 1	2 1.4 1.7 1.6 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	2 1.4 17 1 2 1.4 17 1 2 1.4 17 1	1.4 17 1	T /T F:T 7
1129 1130 C1131 1132	c1133 1134 1135	c1136	c1138 1139 c1140	1141	1143	c1145 1146	1148	01150	c1152	1154	c1155 c1156	1157	1160	C1162 C1162	1163	1166	C1168	1170	1172	01174	c1176	c1178 1179	1180	1182	c1184 c1185	c1186 c1187	1189	c1190 c1191	1193	C1195	01196 01197 01198	01199	1

ACCESSION: AR150229 ACCESSION: BD228102 ACCESSION: BD228102 ACCESSION: BD228102 ACCESSION: AX611099 ACCESSION: AX611099 ACCESSION: AX61294 ACCESSION: AX740294 ACCESSION: AX732836 ACCESSION: AX732836 ACCESSION: AX732836 ACCESSION: AX732836 ACCESSION: AX732164 ACCESSION: AX732164 ACCESSION: AX732164 ACCESSION: AX732164 ACCESSION: AX732166 ACCESSION: AX732166 ACCESSION: AX73268 ACCESSION: AX732626 ACCESSION: AX732628 ACCESSION: AX732628 ACCESSION: AX732626 ACCESSION: AX732628 ACCESSION: AX732638 ACCESSION: AX732638 ACCESSION: AX732638 ACCESSION: AX732638	ACCESSION: AXX80516 ACCESSION: AXX80516 ACCESSION: AX8158320 ACCESSION: BD17144 ACCESSION: BD17144 ACCESSION: BD20163 ACCESSION: AX16714 ACCESSION: AX229053 ACCESSION: AX229053 ACCESSION: AX22075 ACCESSION: AX394078 ACCESSION: AX394078 ACCESSION: AX394078 ACCESSION: AX394078 ACCESSION: AX394078 ACCESSION: AX396036 ACCESSION: AX396036 ACCESSION: AX396036 ACCESSION: AX396036 ACCESSION: AX396036 ACCESSION: AX396036 ACCESSION: AX272821 ACCESSION: AX272821 ACCESSION: AX272821 ACCESSION: AX272821 ACCESSION: AX272821 ACCESSION: AX272821 ACCESSION: AX272821 ACCESSION: AX272821 ACCESSION: AX272821
148 10.4 1.2 20 1 ARISO229 10.4 1.2 20 1 BD228102 10.4 1.2 20 1 AX61104 10.2 10.4 1.2 20 1 AX323360 10.2 1.2 1.2 1.1 AX323360 10.2 1.2 1.2 1.7 1 AX33344 10.2 1.2 1.2 1.7 1 AX42708 10.2 1.2 1.2 1.7 1 AX42708 10.2 1.2 1.2 1.8 1 AX63333 10.2 1.2 1.2 1.8 1 AX63333 10.2 1.2 1.2 1.0 1 AX63333 10.2 1.2 2.0 1 AX33633 10.2 1.2 1.2 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	100 100 100 100 100 100 100 100 100 100
SION: AX29899 SION: I,78884 SION: I,78884 SION: AR22618 SION: AR22618 SION: AR22618 SION: AR22618 SION: AX24116 SION: AX744116 SION: AX7461110 SION: AX7461110 SION: AX36113 SION: AX36113 SION: AX36113 SION: AX36113 SION: AX761110 SION: AX76112 SION: AX76112 SION: AX76112 SION: AX76113	SEILON: ARX 35 95 0 SEILON: ARX 37 97 50 SEINO: ARX 615 89 3 SEINO: ARX 613 84 6 SEINO: BD 72 63 4 SEINO: BD 72 63 4 SEINO: BD 68 99 8 SEINO: ARX 53 81 3 SEINO: ARX 68 81 13 SEINO: ARX 68 81 13
1.4 20 1 AX228904 1.4 20 1 ILISSOB 1.4 20 1 AR226092 1.4 20 1 AR322608 1.4 20 1 AR32288 1.4 12 1 AX32288 1.4 18 1 AX32288 1.3 17 1 AX745126 1.3 20 1 AX745126 1.3 20 1 AX745128 1.3 20 1 AX745129 1.3 20 1 AX745133 1.3 20 1 AX745130 1.3 20 1 AX745129 1.3 20 1 AX745129 1.3 23 1 AX745129 1.3 23 1 AX745129 1.3 23 1 AX745129 1.3 23 1 AX745129 1.3 17 1 AX745129 1.3 17 1 AX745129 1.3 17 1 AX745129 1.3 17 1 AX745129 1.3 18 1 172050 1.3 20 1 AX774512 1.3 17 1 AX745129 1.3 18 1 AX774443 1.3 18 1 AX774443 1.3 20 1 AX798145	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
100.88	28 28 28 28 28 28 28 28 28 28 28 28 28 2

ACCESSION: AR264537 ACCESSION: BD056557 ACCESSION: BD075308 ACCESSION: BD075308 ACCESSION: AX272819 ACCESSION: AX272819 ACCESSION: AX272819 ACCESSION: AX272819 ACCESSION: AX272820 ACCESSION: AX272820 ACCESSION: AX21823 ACCESSION: AX213236 ACCESSION: AX213236 ACCESSION: AX2332605 ACCESSION: AX233240 ACCESSION: AX233240 ACCESSION: AX233343 ACCESSION: AX233344 ACCESSION: AX233349 ACCESSION: AX233386 ACCESSION: AX233386 ACCESSION: AX233386 ACCESSION: AX233386 ACCESSION: AX233388 ACCESSION: AX233338	366
21 1 AR264537 27 1 BDD75308 27 1 BDD75529 17 1 AX272819 17 1 AX722819 17 1 AX722819 17 1 AX728165 17 1 AX728165 17 1 AX218185 17 1 AX218185 17 1 AX218185 17 1 AX218231 17 1 AX218231 17 1 AX218231 17 1 AX218231 18 1 AX218231 19 1 AX218231 10 AX218231 11 1 AX218231 11 1 AX218231 12 1 AX218231 13 1 AX218231 14 1 AX218231 15 1 AX218231 16 1 AX218231 17 1 AX218231 18 1 AX218231 19 1 AX218240 19 1 AX130642 19 1 AX32666 10 1 AX20166 20 1 AR201166 20 1 AX20103 20 1 AX20103 20 1 AX326605 20 1 AX201048 20 1 AX326605 20 1 AX201048 20 1 AX20103 20 1 AX20103 20 1 AX20103 20 1 AX20103 20 1 AX20103 20 1 AX20103 20 1 AX20103 21 1 AX20203 22 1 AX20203 23 1 AX20203 24 AX445671 27 1 AX022133 27 1 AX0829960	
	9.2 9.2 1.1 1.1 1.1
0.000000000000000000000000000000000000	
ACCESSION: AR196201 ACCESSION: AR22669 ACCESSION: BD101313 ACCESSION: BD101313 ACCESSION: BD101313 ACCESSION: AR29447 ACCESSION: AR29447 ACCESSION: AR39625 ACCESSION: AR39625 ACCESSION: AR39626 ACCESSION: AR40110 ACCESSION	ACCESSION: AR035022 ACCESSION: AR035040 ACCESSION: AR264519
1 AR196201 1 AX126201 2 AX118630 2 AX4128630 2 AX4228311 2 BD228331 2 AX2383647 2 AX393844 2 AX30834 2 AX30834 2 AX10834 2 AX10834 2 AX10834 2 AX10834 2 AX108368 2 AX108368 2 AX108368 2 AX1083551 2 AX108368 2 AX10837 2 AX108368	
	.1 21
வை வ	9.9.9
0.00	C1491 C1492 C1493

ACCESSION: AR225927 ACCESSION: AR364587 ACCESSION: AR324494 ACCESSION: AR296176 ACCESSION: AR296176 ACCESSION: AR296176 ACCESSION: AR296181 ACCESSION: AR373496 ACCESSION: AR373496	ACCESSION: AX759311 ACCESSION: 16275 ACCESSION: 16275 ACCESSION: 16275 ACCESSION: AX45019 ACCESSION: AX731454 ACCESSION: AX731454 ACCESSION: AX731933 ACCESSION: AX737933 ACCESSION: BD241111 ACCESSION: BD241111 ACCESSION: BD241111 ACCESSION: BD241111 ACCESSION: BD241111 ACCESSION: AX73493 ACCESSION: AX73493 ACCESSION: AX73493 ACCESSION: AX73493 ACCESSION: AX73493	ACCESSION, AR286512 ACCESSION, AR390611 ACCESSION, AR39302 ACCESSION, AR475016 ACCESSION, AX475017 ACCESSION, AX493389 ACCESSION, AX532294 ACCESSION, AX532294 ACCESSION, AX532294 ACCESSION, AX532294 ACCESSION, AX648309 ACCESSION, AX688647 ACCESSION, AX688647 ACCESSION, AX6886647	ACCESSION: AX783559 ACCESSION: AX7810516 ACCESSION: BD011185 ACCESSION: BD202857 ACCESSION: RA164696 ACCESSION: AR218660 ACCESSION: AR22937 ACCESSION: AR22933 ACCESSION: AR344531 ACCESSION: AR344531 ACCESSION: AR34777705787 ACCESSION: AR437472	ACCESSION: AX718779 ACCESSION: AX7380115 ACCESSION: AX7380115 ACCESSION: AX73101115 ACCESSION: AX7331315 ACCESSION: BD174184 ACCESSION: BD174184 ACCESSION: BD174184 ACCESSION: BD174184 ACCESSION: AX737417 ACCESSION: AX737917 ACCESSION: AX70999
				1 AX71879 AK106826 1 AX98015 1 AX912011 AX130663 AX131315 1 BD174184 1 BD174184 1 BD174184 1 BD174184 1 BD688101 AB067952 1 AF22139 1 AF22139 1 AK27594 1 AK675941 1 AK675941 1 AK675941
0 10 10 10 10 10 10 10 10 10 10 10 10 10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1665 1666 1666 1668 1670 1672 1672 1673 1673 1674 1675 1677 1677 1677	011 0689 0689 0689 0688 0688 0688 0688 0688	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
				ACCESSION: BD222561 ACCESSION: ARI3 0052 ACCESSION: ARI3 0052 ACCESSION: ARI3 0054 ACCESSION: ARA27089 ACCESSION: AX44 0575 ACCESSION: AX44 0575 ACCESSION: AX44 0575 ACCESSION: AX44 0575 ACCESSION: AX40 379 ACCESSION: ARI0 2975 ACCESSION: AX10 108 ACCESSION: AX10 06958 ACCESSION: AX10 06977
	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7			11 18 1 BD222561 18 1 AR130652 18 1 AR42594 19 1 13612 11 18 1 AX427089 11 18 1 AX440575 11 18 1 BD089994 11 18 1 BD089994 11 19 1 AX142726 11 20 1 AR142726 12 0 1 AR182975 13 20 1 AR182975 14 20 1 AX706958 15 0 1 AX706958 16 0 1 AX706958 17 0 1 AX706958 18 0 1 AX706958 19 0 1 AX162770 10 20 1 AX162770 10 20 1 AR162770 11 20 1 AX162770 12 0 1 AX162770
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1620 1621 1622 1623 1624 1624 1625 1626 1627 1629 1630 1630 1631 1633

ACCESSION: AXA 7552 ACCESSION: AXX 72511 ACCESSION: AXX 2511 ACCESSION: AXX 2511 ACCESSION: AXX 2619 ACCESSION: AXX 2611 ACCESSION: AXX 5611 ACCESSION: AXX 5611 ACCESSION: AXX 5611 ACCESSION: AXX 5611 ACCESSION: AXX 5611	ACCESSION: AR1 5:656 ACCESSION: AR2 12054 ACCESSION: BD08718 ACCESSION: BD08718 ACCESSION: BD24935 ACCESSION: BD24935 ACCESSION: AR3 62560 ACCESSION: AR3 62560 ACCESSION: AR3 62560 ACCESSION: AR3 2657 ACCESSION: AR2 4067 ACCESSION: AR2 40676 ACCESSION: AR2 4067 ACCESSION: AR3 23 36 ACCESSION: AR3 22 618 ACCESSION: AR2 4067 ACCESSION: AR3 2069 ACCESSION: AR3 2013 ACCESSION: AR3 2013 ACCESSION: AR3 2013 ACCESSION: AR3 2014 ACCESSION: AR3 2017
	1819 8.6 1.0 18 1 AR156856 1820 8.6 1.0 18 1 AR3102054 1822 8.6 1.0 18 1 AR3102054 1823 8.6 1.0 18 1 BD087918 1824 8.6 1.0 18 1 BD087918 1825 8.6 1.0 18 1 BD087918 1826 8.6 1.0 18 1 AR201799 1827 8.6 1.0 18 1 AR201799 1829 8.6 1.0 18 1 AR32657 1829 8.6 1.0 18 1 AR32657 1831 8.6 1.0 18 1 AR32657 1832 8.6 1.0 19 1 AR326657 1834 8.6 1.0 19 1 AR32687 1834 8.6 1.0 19 1 AR32687 1835 8.6 1.0 19 1 AR32687 1836 8.6 1.0 19 1 AR32687 1841 8.6 1.0 19 1 AR3289 1844 8.6 1.0 19 1 AR32919 1845 8.6 1.0 19 1 AR32919 1846 8.6 1.0 20 1 AR3367 1847 8.6 1.0 20 1 AR3367 1853 8.6 1.0 20 1 AR3367 1854 8.6 1.0 20 1 AR3367 1855 8.6 1.0 20 1 AR3367 1856 1.0 20 1 AR3367 1857 8.6 1.0 20 1 AR3367 1858 8.6 1.0 20 1 AR3367 1859 8.6 1.0 20 1 AR3367 1850 8.6 1.0 20 1 AR3
N.A85115 N.A27556 N.A27556 N.IA4648 N.IA4648 N.AR3208447 N.AR3208447 N.AR320841 N.AR320846 N.AR320846 N.AR320846 N.AR320846 N.AR320846 N.AR320846 N.AR320986 N.AR320986 N.AR32000	AX815551 AX411930 BA411930 BA411930 BA711930 BA71556 AX15566 AX103165 AX103165 AX103165 AX103165 AX103165 AX103165 AX103165 AX103165 AX103165 AX103163
	1.1 18 1 AX85551 1.1 19 1 AX85551 1.1 19 1 AX20666 1.1 19 1 AX20666 1.1 19 1 AX20666 1.1 19 1 AX103165 1.1 19 1 AR103165 1.1 20 1 AR12440 1.1 20 1 AR12440 1.1 20 1 AR12390 1.1 20 1 AR313179 1.1 20 1 AR313179 1.1 20 1 AR31355 1.1 20 1 AX08349 1.1 20 1 AX31455 1.1 20 1 AX31459 1.1 20 1 AX31450 1.1 20 1 AX3145 1.1 20 1 AX31600 1.1 3 1 AX15390 1.0 17 1 AX735420 1.0 17 1 AX475751
ன் க ் க்	1755 1756 1757 1757 1755

ACCESSION: BD088500 ACCESSION: AB069475 ACCESSION: AX130641 ACCESSION: AX130641 ACCESSION: I14209 ACCESSION: I14209 ACCESSION: I14209 ACCESSION: I14209 ACCESSION: AX294112 ACCESSION: AX294112 ACCESSION: AX294112 ACCESSION: AX294112 ACCESSION: AX294112 ACCESSION: AX105626 ACCESSION: AX105626 ACCESSION: AX1052366 ACCESSION: AX1052373 ACCESSION: AX1052373 ACCESSION: AX1052366 ACCESSION: AX105365 ACCESSION: AX105365 ACCESSION: AX105365 ACCESSION: AX1054649	ACCESSION: AR286295 ACCESSION: AR397995 ACCESSION: AR397995 ACCESSION: AR398286 ACCESSION: AR421865 ACCESSION: AR421865 ACCESSION: AR422919 ACCESSION: AR422919 ACCESSION: AR422917 ACCESSION: AR4187367 ACCESSION: AR432977 ACCESSION: AR43297750
1 BD088500 1 AX130641 1 AX130641 1 AX130641 1 112253 1 1147348 1 AX294212 1 AX294212 1 AX294212 1 AX294212 1 AX294212 1 AX105626 1 AX105626 1 AX105626 1 AX105626 1 AX105626 1 AX105626 1 AX105626 1 AX105626 1 AX105626 1 AX105734 1 AX105734 1 AX105734 1 BD24734 1 AX107366 1 BD013557 1 BD13557 1 BD24475 1 AX16531 1 AX16531 1 AX16531 1 AX16531 1 AX16533 1 AX16531 1 AX16531 1 AX16531 1 AX16531 1 AX16531 1 AX16533 1 AX16531 1 AX165419 1 AX165419 1 AX165419 1 AX165419 1 AX165419 1 AX165419 1 AX165419 1 AX16630 1 AX16630	
777777777777	
а а а а а а а а а а а а а а а а а а а	
1011 1 1010 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.000000000000000000000000000000000000
ACCESSION: AX296950 ACCESSION: AX794454 ACCESSION: AX794454 ACCESSION: AX794454 ACCESSION: AX794454 ACCESSION: AX21069 ACCESSION: AX21069 ACCESSION: AX221068 ACCESSION: AX221068 ACCESSION: AX221068 ACCESSION: AX221068 ACCESSION: AX2210197 ACCESSION: AX221112 ACCESSION: AX732593 ACCESSION: AX732593 ACCESSION: AX732594 ACCESSION: AX732593 ACCESSION: AX73256 ACCESSION: AX73256 ACCESSION: AX73256 ACCESSION: AX73256 ACCESSION: AX73256 ACCESSION: AX73256 ACCESSION: AX73269 ACCESSION: AX73269 ACCESSION: AX73269 ACCESSION: AX73269 ACCESSION: AX73269 ACCESSION: AX73269 ACCESSION: AX732161 ACCESSION: AX732161 ACCESSION: AX732161 ACCESSION: AX732169 ACCESSION: AX732169 ACCESSION: AX732169 ACCESSION: AX732169 ACCESSION: AX732188 ACCESSION: AX732188 ACCESSION: AX732188 ACCESSION: AX732189 ACCESSION: AX732189 ACCESSION: AX732180 ACCESSION: AX73289 ACCESSION: AX73289 ACCESSION: AX73289 ACCESSION: AX73289	566666666666666666666666666666666666666
AX296950 1 DAX296950 1 AX296454 AX798454 1 AX211607 AX211607 1 AX211607 1 AX221069 1 AX328197 AX328197 AX328197 AX327721 1 AX732721 1 AX732721 1 AX73256 1 AX578256 1 AX578250 1 AX578266 1 AX57826 1 AX578266 1 AX578266 1 AX578266 1 AX578269 1 AX578269	
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Ს Ს Ს Ს Ს Ს Ს Ს Ს Ს Ს Ს Ს Ს Ს Ს Ს Ს Ს	
0.000000000000000000000000000000000000	10000000000000000000000000000000000000

ACCESSION: AX615936 ACCESSION: AX674521 ACCESSION: AX674521 ACCESSION: AX67434043 ACCESSION: AX67434043 ACCESSION: AX6734109 ACCESSION: AX6734109 ACCESSION: AX673410 ACCESSION: AX673410 ACCESSION: AX724491 ACCESSION: AX724491 ACCESSION: AX724491 ACCESSION: AX724491 ACCESSION: AX7246939 ACCESSION: AX7246939 ACCESSION: AX724995 ACCESSION: AX729950 ACCESSION: AX729950 ACCESSION: AX729950 ACCESSION: AX729930 ACCESSION: AX732623 ACCESSION: AX732623 ACCESSION: AX732663 ACCESSION: AX732623 ACCESSION: AX733263 ACCESSION: AX7332632 ACCESSION: AX73	ACCESTON: AR139298 ACCESTON: AR139298 ACCESSION: AR233332 ACCESSION: AR2310755 ACCESSION: AR2110755 ACCESSION: AR011627 ACCESSION: AR011627 ACCESSION: AR0136086 ACCESSION: AR105517 ACCESSION: AR105517 ACCESSION: R29541 ACCESSION: R295486 ACCESSION: B0006768 ACCESSION: B0006768
1.0 17 AX615936 1.0 17 1 AX674521 1.0 17 1 AX680114 1.0 17 1 AX680114 1.0 17 1 AX680114 1.0 17 1 AX680114 1.0 17 1 AX615726 1.0 17 1 AX615726 1.0 17 1 AX615726 1.0 17 1 AX615736 1.0 17 1 AX673410 1.0 17 1 AX673410 1.0 17 1 AX673410 1.0 17 1 AX673410 1.0 17 1 AX720608 1.0 18 1 AX730608 1.0 19 1 AX730609 1.0 19 1 AX730609 1.0 10 10 10 10 10 10 1	1.0 20 1 AR15929 1.0 20 1 AR23332 1.0 20 1 AR23333 1.0 20 1 BR33808 1.0 20 1 AR03162 1.0 20 1 AR03196 1.0 20 1 AR03196 1.0 20 1 AR03196 1.0 20 1 BA9541 1.0 20 1 BA9541 1.0 20 1 AR21591 1.0 20 1 AR21591
00000000000000000000000000000000000000	
ACCESSION; AK649524 ACCESSION; AK649525 ACCESSION; AK699097 ACCESSION; AK7331112 ACCESSION; AK7331112 ACCESSION; AK7331112 ACCESSION; AK7331112 ACCESSION; AK7331112 ACCESSION; AK7331112 ACCESSION; AK733235 ACCESSION; AK788690 ACCESSION; AK788691 ACCESSION; AK788691 ACCESSION; AK788691 ACCESSION; AK788691 ACCESSION; AK78977 ACCESSION; AK37742 ACCESSION; AK37742 ACCESSION; AK37742 ACCESSION; AK37742 ACCESSION; AK37742 ACCESSION; AK37741 ACCESSION; AK37774 ACCESSION; AK37774 ACCESSION; AK37774 ACCESSION; AK17833 ACCESSION; AK417334 ACCESSION; AK417334 ACCESSION; AK417333 ACCESSION; AK17833 ACCESSION; AK417333 ACCESSION; AK417333 ACCESSION; AK417334 ACCESSION; AK463302 ACCESSION; AK183364 ACCESSION; AK183334 ACCESSION; AK183364 ACCESSION; AK183334 ACCESSION; AK183334 ACCESSION; AK183334 ACCESSION; AK183334 ACCESSION; AK183364 ACCESSION; AK183334	CCESSION
1.0 17 1 AX649524 1.0 17 1 AX649525 1.0 17 1 AX732037 1.0 17 1 AX732037 1.0 17 1 AX732035 1.0 17 1 AX78659 1.0 18 1 AX18699 1.0 17 1 AX78659 1.0 18 1 AX18699 1.0 19 1 AX18699 1.0 20 1 AX18799 1.0 22 1 AX18799 1.0 22 1 AX18799 1.0 3 3 1 AX18799 1.0 4 1 AX186996 1.0 17 1 AX26653 1.0 17 1 AX186996 1.0 17 1 AX186996	
00000000000000000000000000000000000000	665 666 668 668 669 070 071 073 073 077

ACCESSION: AX342472 ACCESSION: AX600970 ACCESSION: BD217453 ACCESSION: BD210669 ACCESSION: BD250669 ACCESSION: AR201812 ACCESSION: AR201812 ACCESSION: AR201812 ACCESSION: AR30688461 ACCESSION: AX138880 ACCESSION: AX138880 ACCESSION: AX138880 ACCESSION: AX138880 ACCESSION: AX138880 ACCESSION: AX138880 ACCESSION: AX138810 ACCESSION: AX138810 ACCESSION: AX1388114 ACCESSION: AX14233 ACCESSION: AX148823 ACCESSION: AX14313506 ACCESSION: AX14313506 ACCESSION: AX14313506 ACCESSION: AX14313506 ACCESSION: AX14313506 ACCESSION: AX1313175 ACCESSION: AX23114 ACCESSION: AX33176 ACCESSION: AX331775 AC	ACCESSION: AX728303 ACCESSION: AX728303 ACCESSION: AX728404 ACCESSION: AX735269 ACCESSION: AX735269 ACCESSION: AX735269 ACCESSION: AX735269 ACCESSION: AX735269 ACCESSION: AX728036 ACCESSION: AX728036 ACCESSION: AX723166 ACCESSION: AX723166 ACCESSION: AX723166 ACCESSION: AX7331392 ACCESSION: AX7331392 ACCESSION: AX731392 ACCESSION: AX7331392 ACCESSION: AX735169 ACCESSION: AX736631
2224 7.8 0.9 18 1 AX342472 C2225 7.8 0.9 18 1 AX600970 C2226 7.8 0.9 18 1 AX600970 C2226 7.8 0.9 18 1 BD17453 C2229 7.8 0.9 18 1 BD17453 C2231 7.8 0.9 18 1 BD17453 C2231 7.8 0.9 18 1 BD17453 C2234 7.8 0.9 18 1 BD17453 C2235 7.8 0.9 19 1 AX322928 C2236 7.8 0.9 19 1 AX322928 C2236 7.8 0.9 19 1 AX322928 C2237 7.8 0.9 19 1 AX322928 C2237 7.8 0.9 19 1 AX322928 C2237 7.8 0.9 19 1 AX322928 C2236 7.8 0.9 20 1 AX13596 C2225 7.8 0.9 20 1 AX13596 C2225 7.8 0.9 20 1 AX1359176 C2255 7.8 0.9 20 1 AX1359176 C2256 7.6 0.9 20 1 AX33114 C2256 7.6 0.9 15 1 AX331176 C2266 7.6 0.9 15 1 AX331176 C22	
NN.ARGG6886 NN.ARGG6886 NN.ARGG018 NN.ARGG018 NN.ARGG018 NN.ARGG649 NN.ARGG6449	ION: AX6 99022 ION: AX6 73 431 ION: AX7 23 562 ION: AX7 23 562 ION: AX7 26 992 ION: AX4 23 781 ION: AX4 23 781 ION: AX4 23 781 ION: AX6 091 ION: AX6 091 ION: AX6 091 ION: AX8 06 073 ION: AX8 06 91 ION: AX8 06 965 ION: AX8 06 965
1.0 20 1 AROGGRGG 1.0 20 1 ARIS 2018 1.0 24 1 BD203614 2.0 20 1 5 1 BD203619 2.0 20 1 5 1 BD2036510 2.0 20 1 5 1 BD2036510 2.0 20 1 5 1 AROGGRGG 2.0 20 2 1 5 1 AROGGRGG 2.0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2.9 17 1 AX46 2.9 17 1 AX67 2.9 17 1 AX77 2.9 18 1 AX44 2.9 18 1 AX67 2.9 18 1 AX67 2.9 18 1 AX67 2.9 18 1 AX67 2.9 18 1 AX67 3.9 18 1 AX67 4.9 18 1 AX67 4.9 18 1 AX67 5.9 18 1 AX67 6.9 1 AX67 6.9 1 AX67 6.9 1 AX67 6.9 1 AX67 6.9 1 AX67 6.9 1
221551 221551 221553 221554 2215554 2215554 2215554 2215554 2215554 2215554 2215557 2215557 221556 221557 22157 221	

ACCESSION: AR195242 ACCESSION: AR222324 ACCESSION: AR241443 ACCESSION: AX767405 ACCESSION: AX767405	ACCESSION: AX82823 ACCESSION: BD14809 ACCESSION: AD175140	ACCESSION: AKS 0.2215 ACCESSION: AX 0.2752 ACCESSION: AX 7.67687	ACCESSION:AX796133 ACCESSION:AX838191 ACCESSION:AJ600883	ACCESSION:AR293145 ACCESSION:AJ588511 ACCESSION:AX226092	ACCESSION: AX226209 ACCESSION: AR232382 ACCESSION: AX354929	ACCESSION:AX213186 ACCESSION:AX733667 ACCESSION:AX734587	ACCESSION: AX762068 ACCESSION: AX730392 ACCESSION: AX264827	ACCESSION: AX264828 ACCESSION: 176402	ACCESSION:183822 ACCESSION:186150 ACCESSION:186244	ACCESSION: AX704885 ACCESSION: AX726325	ACCESSION: AX727995 ACCESSION: AX728539 ACCESSION: AX760076	ACCESSION: BD104458 ACCESSION: BD198735	ACCESSION: BD204817 ACCESSION: BD182181	ACCESSION:143731 ACCESSION:143771 ACCESSION:AR203413	ACCESSION: AR300697	ACCESSION:AKIU0392 ACCESSION:AK150047 ACCESSION:BD227920	ACCESSION: BD088405 ACCESSION: AB069144	ACCESSION: AA433377 ACCESSION: A66854 ACCESSION: AR080880	ACCESSION:AR158489 ACCESSION:AR158490 ACCESSION:AX423449	ACCESSION: AR026537 ACCESSION: 128328	ACCESSION:133620 ACCESSION:AR328778 ACCESSION:AX217431	ACCESSION: AX217808 ACCESSION: AX422851	ACCESSION: AX544615 ACCESSION: AX579066 ACCESSION: AX723973	ACCESSION:AX725518 ACCESSION:AX726977 ACCESSION:AX732309	ACCESSION: AX733588 ACCESSION: AR044569 ACCESSION: A97747	
0.9 18 1 AR195242 0.9 18 1 AR222324 0.9 18 1 AR241443 0.9 18 1 AX767405 0.9 18 1 AX822183	6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6		1 81 6.	20 20 20 20 20 20	2000	6. 6. 1. 7.1 1. 7.1	1 71 6.	1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	171 0.0	1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.9 17 1	1 7 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.00	2. 6. 6. 2. 6. 6. 4. 6. 6.	76.01 10001	6.00	6.00	7. 8 4. 1 4	1. 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	.8 17 1 1.7 1 1.7 1	.8 17 1 1. 71 1 1. 71 1	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	71 71 71	.8 17 1 .8 17 1		***
2370 2371 2372 7.4 2373 7.4 2373 7.4			77.	7.7.		7.7.								7.7.	7.0				en 10 to		α ο =	40.0	e# 10 70	.	\ C = 0	
ACCESSION:172445 ACCESSION:172446 ACCESSION:AX207873 ACCESSION:BD089682 ACCESSION:BD099652	ACCESSION: BD104028 ACCESSION: AB068407 ACCESSION: AX829258	ACCESSION: AKZ97 03.2 ACCESSION: E29763 ACCESSION: AX129568 ACCESSION: AX129942	ACCESSION: AXX30629 ACCESSION: AXX203404 ACCESSION: BD088819	ACCESSION: AB068438 ACCESSION: AX296579 ACCESSION: AX488393	ACCESSION: AX577812 ACCESSION: AX400769 ACCESSION: AX494042	ACCESSION: AX262644 ACCESSION: AX262645 ACCESSION: AX262648	ACCESSION: AX262649 ACCESSION: AX690414	ACCESSION: AR158488 ACCESSION: AX728754	ACCESSION:AR302507 ACCESSION:AX757615	ACCESSION: AR402075 ACCESSION: AR402075 ACCESSION: AX759726	ACCESSION:BD067575 ACCESSION:AR057504	ACCESSION: ARTIS202 ACCESSION: BD256822 ACCESSION: AR186861	ACCESSION: AR191924 ACCESSION: AR323492	ACCESSION: AR325817 ACCESSION: AX422259	ACCESSION: AX502921 ACCESSION: AX615341	ACCESSION: AX634557 ACCESSION: AX649088 ACCESSION: AX672227	ACCESSION: AX673409 ACCESSION: AX688250	ACCESSION:AX691845 ACCESSION:AX722603 ACCESSION:AX723211	ACCESSION: AX726456 ACCESSION: AX726608	ACCESSION: AX737214 ACCESSION: AX757076	ACCESSION:AX759141 ACCESSION:AX772267	ACCESSION: 126358 ACCESSION: AX422190	ACCESSION: AX423040 ACCESSION: AX729345 ACCESSION: AX735353	ACCESSION: AX759752 ACCESSION: AX762816	ACCESSION: AR324768 ACCESSION: BD089937 ACCESSION: AR175666	
0.9 18 1 172445 0.9 18 1 172446 0.9 18 1 AX207873 0.9 18 1 BD089682 0.9 18 1 BD093552	6,666	7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1000	6.60 6.60 6.60 6.60 6.60 6.60 6.60 6.60	22.17	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20 20 20 20 20 20 20 20 20 20 20 20 20 2	1 7 1 6	6. 6. 7. 7. 1. 1.	.9 11 12 19 19 19 19 19 19 19 19 19 19 19 19 19	17 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	. 17 1 2 6. 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 71 9	6. 6. 1. 7.1. 1. 7.1.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1 71 6	1 71 6.	1 71 6.	.9 17 1	6. 6. 71 71 71		1 71 6.		, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,	
02297 7.6 02298 7.6 2299 7.6 02300 7.6													7.7													

SSION: BD23302 SSION: AR25474 SSION: AX00758 SSION: AX42862 SSION: AR284748 SSION: AR2840 SSION: AR2830 SSION: AR2830 SSION: AR2830 SSION: AR2830 SSION: AR2830	ACCESSION AXA 50 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10	SSION, KAR2627, SSION, AX1250 SSION, AX1250 SSION, AX1250 SSION, AX1250 SSION, AX12750 SSION, AX2771 SSION, AX2729 SSION, AX7229 SSION, AX72259 SSION, AX7259 SSION, AX72259 SSION, AX72259 SSION, AX72259 SSION, AX72259
BD2330 AR2547 AX0075 AX4286 AR2939 AR2939 AX6904 AX3258	AX573039 AX673014 AX736665 AX736665 AX736665 AX7402305 AX7402305 AX412955 AX672829 AX672830 AX672830 AX672830 AX726944 AX73062 AX70623 AX70653	AXX 84284 AXX 1328 AXX 1328 AXX 1328 AXX 1328 AXX 1328 BX 1328 BX 1328 BX 1328 BX 1328 AXX 1288 AXX 1288
000000047777		788887777388887775
777777788888		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ਹੀ ਦੀ ਦੀ ਦੀ ਦੀ ਦੀ IO IO IO IO IO	, , , , , , , , , , , , , , , , , , ,	7 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 0 0 0 0

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

July 29, 2004, 15:45:39 ; Search time 15 Seconds (without alignments) 3.643 Million cell updates/sec Run on:

US-09-904-568-1 835 1 atgtctgctttgggggctgc......gagtcaacagctgggcaggg 835 Title: Perfect score: Sequence: Scoring table:

1737 seqs, 32719 residues IDENTITY NUC Gapop 10.0 , Gapext 0.5 Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 8 Maximum DB seq length: 50

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 1786 summaries

rngdb:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	SUMMARIES		
ı			
ı		dю	Sharry
			Deanlt

	Description	man megsin prom	ξ	e tra	Human anterior pit	Human fkbp 12.87 s	Human microarray D	Human natriuretic	DNA topoisomerase	Toxicologically re	Human microarray D	Nucleotide sequenc		Pre-invasive human	arr	Human GDMLP-1 25-m	GDMLP-1	GDMLP-1	cologica	elrba 3'	e Pu			microarray	Ω	Φ		Φ			PCR 1	regeneration	r for	Human FADD primer
SUMMARIES	ID	A7144	599	92	4658	5483	65	5144	5594	24	195	154	32	2	24	ABN13283	28	32	ᅼ	36	773	7	88	90	40	554	548	548	S	908	AAV01125	35	3253	AAZ44829
	DB		Н	Н	Н	Н	-	~	٦	٦	٦	Н	-	Н	Н	ч	H	н	Н	٦	Н	Н	Н	Н	Н	Н	H	Н	Н	н	Н	Н	Н	Н
	Length	30	27	27	27	24	25	25	24	25	25	23	24	25	25	25	25	25	25	25	25	25	25	25	22	24	24	24	24	19	19	19	20	20
dł	Query Match	2											•			2.0						•	•	•	•			•					•	1.9
	Score	1 (3)	19	18.2	18	7.	۲.	7	7.	17	17	ů,	φ.	Ġ	ů.	16.6	ŝ	œ	Ġ.	ý.	9	•	è.	9	ġ.	ġ	ġ.	Ģ.	16	īŪ,	'n.	15.8	ū.	15.8
	ult No:	ı	Ŋ	m	4	2	9	7	ω	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
	Ω I	i	υ					υ		υ		υ	υ			υ	υ	υ	U					υ			υ				O	O	U	U

Human ornithine de Primer CP-37. Syn Chlamydia trachoma Chlamydia trachoma Human prodia trachoma Human prodict proteinman prodict forw Human prodict forw Human motor proteinman proteinman secreted/trassered and trans novel human secreted/trassereted and trans novel human secreted/trashovel human secreted/trashovel human secreted/trashovel human secreted	Human PRO 1072 PCR Human STCM CCI CCI Human STCM CCI AN Human PROB71 FORM	Oligonucleotide ad Oligonucleotide ad Oligonucleotide ad Secreted and trans Novel human secreted/tra Human PRO DNA PCR Human secreted/tra Mouse CLASP-2 PCR Secreted and trans Novel human secreted/tra Novel human secreted/tra Human PRO BNA PCR Human PRO 871 PCR
2 1 ACC4875 3 1 AAQ11183 3 1 AAAC1183 3 1 AAAC173 4 1 AAC3414 4 1 AAC3414 4 1 ABC5187 4 1 ABC5187 4 1 ACA6371 4 1 ACA6378 4 1 ACA6378 4 1 ACA6378 4 1 ACA6356 4 1 ACA6256 4 1 ACA6298 4 1 ACA6298	24 1 ADB 78811 24 1 ADB 76821 24 1 ADC 636777 24 1 ADC 68026 24 1 ADC 68026 24 1 ADC 68026 24 1 ADC 68026 24 1 ADC 6737 24 1 ADC 67337 24 1 ADC 6737 24 1 ADC 6737 25 1 ADC 6737 26 1 ADC 6737 27 1 ADC 6737 28 1 ADC 6737 29 1 ADC 6737 20 1 ADC 6737 20 1 ADC 6737 20 1 ADC 6737 21 1 ADC 6737 22 1 ADC 6737 23 1 ABC 8029 24 1 ADC 8029 25 1 ADC 8029 26 1 ADC 8029 27 1 ADC 8029 28 1 ADC 8029 29 1 ADC 8029 20 1	4 1 ABQ0817 4 1 ABQ08217 4 1 ABQ08217 4 1 ACA5836 4 1 ACA5836 4 1 ACA52836 4 1 ACA52847 4 1 ACA52847 4 1 ACA52847 4 1 ACA5287 4 1 ACC51615 4 1 ACC51615 4 1 ACC51617 4 1 ACC51617
, , , , , , , , , , , , , , , , , , ,		
0 00 W M M W M M A A A A A A A A A A W W W R R R R R R R	0000 000000000000000000000000000000000	00000000000000000000000000000000000000

	AAZ05409 AAX34805 AAA15595																																																				
	2000 0000 444																																																				
	8.8.8	1.8	œ. œ.	7.8	ы. 6	. H	1.8	ч. œ. a	ο α 	9 80 ·	8.1	1.7	1.7	1.7	7.7	1.7	1.7	1.7	1.7	1.7	1.7	7.7	1.7	1.7	7.1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	7.1	1.7	1.7	1.7	1.7	1,7	1.7	1.7	۲,	1.7	1.7	۲.۲		1.7	1.7	1.7	۲.۲	1.7	1.7	1.7	1.7
	4 4 4 4 8 8 8 8	4.	4.4	٠.	4.4	. 4.	4	4.4	. 4	. 4	4.	• •	4.	₩,	d: <		٠.	st s	, , , ,		٠.	, বাব		14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4		14.4						•						4.		4		14.2
-l.rng	c 180 181 c 182	c 183		186		189	c 190		192			0 Ly6				0 202			205	202		C 209	211	212		C 215		218		C 220			0 224 224				C 230		233	c 234	235	237	c 238	239	241	242		C 245		C 24 /	249	250	c 252
schu568	PCR PCR	er.	ርረ የ	e ex	e ·	V.i.	ч '	0 1	3 -		7	T.C.	- Hd	ot.	r.	א ני	et	Si	a E	מק אווי	aq	ָם קים	ם ק	aq	ָם קימי	410 Tag	a d	p	U	t 0	2 ·i-1	ro	ž d	e t	ra	e et	ra	ra	ר א ר א	ra	ra	10 EU	ra	ra	ot o	ot.		ц	9)	e ac	ਰ	of	re f
	Human PRO 871 PC Human PRO 871 PC Human PRO 871 PC	PRO 871	871	Human PRO 871 PC	Human PRO 871 PC	ADOE CDNA amplif	PCR primer INSPR	SCEPO section 3 co	Drimen FROIGE TO TO	Zmax1 gene regio	Human chromosome	Human onco-gene	Mouse caspase 7	Human oligonucle	Human HBM SIS ma	Human secreted/t	Novel human secr	Sequence tagged	Human DRO DOR or	Human PRO 1410 T	Human PRO 1410 Tag	Human PRO 1410 T	Human Pro 1410 T HSD11B1 antisens	Oligo JT-296 for	PCR primer used	Human cysteine-r	PCR primer and p	Human PRO1563 forw	Novel human secr	Human secreted/t	Novel human secr	Human secreted/t	IGF-I oligonucle	IGF-I oligonucle	Human dene sindl	Ę	Human Rad51 anti	Antisense oligon	Primer oligo use	Human inhibitor of	TOXICOLOGICALLY TYR 1 PCR primer												
00.4 4	ADE49280 ADE35334 ADE16448	9	CAL		ωç	ŽΨ		<u>m</u> 5		(1)	9	ωű	9	9	m u	9 0		w r	` -	1 0	ლ.	co c	9 00	ω.	-1 -	J 4.	φ,	-1 0	-	ŭι	<u>, </u>	φ	œς	10	9	c	oω	ᅼᆘ	υr	'n	ru o	\circ	~ ~	m	0 M	m i	ο	N	0	→ 4	" "	oo v	Φ 64
: 03	1 4 4 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	***	er e	• स	44.0	n 0	-	m c			0			0	0.0			0 (٠.		0	0.0					٠,	٠ ٠		_ ^	v 01	<u> </u>	m n	n		m .			~ ~		.	n m				10.	~ _	. ~	_	~ ~			
10:32	000																																																				
Jul 30	15.6	'n	س	່ທ	u u	ດ່ທ	Ľ.	ທ່ມ	, u		'n.	ນ ທ	'n	w.	ı,	່ທ	'n	ιÓ.	υ π		'n.	io ia	່ທ	ın.			10.1	٠. ۱	iń	٠ <u>.</u> ١		in	ω u	n	10			ю. 10	, ı		io i			io 1	, r	12	ገ <u>ተ</u> ህ ቢ	11	12	۲. د د	4.	٠.,	14.8 14.8
ભ ન ન	c 107 c 108	_							-, ,-		п.	., .			.,,		1.1		7 -					_		c 142	П,	7	7		1 1	c 150	151	153	154	155	157	158	159	161	162	163	165	166	7 ~	c 169	170	172	-		4 ~	c 177	-11

PCR primer used to Human ZSIG-11 DNA Reverse PCR Primer Linker #5. Uniden Arabidopsis chromo Thale cress Ht2 DN Human oligonucleot Human oligonucleot CR3 oligonucleot CR3 oligonucleot Human oligonucleot Human oligonucleot PCR primer tor lactofer human lactoferin PCR primer used to PCR primer used to PCR primer tor lactofer human lactoferin PCR primer tor lactofer in PCR primer to lactofer human lactoferin PCR primer 2 used to a PCR primer tor lactofer human lactoferin PCR primer 2 used to a PCR primer tor lactofer human lactofering PCR primer 10 to PCR primer 2 used to a PCR primer Eaten of a pcrimer a used to a PCR primer a lactofer in Licken edaminas Adenosine deaminas Adenosine dea

1 3 mg = 1

TO . 75 . OT

Page ,	Chromosome 11 (10c M. sexta alaserpin Human A-raf kinase Chemokine receptor Human A-raf specif Chemokine receptor Presenilin-2 alter Human A-raf specif Presenilin-2 alter Human A-raf specif PCR primer used to PCR primer u
	AACO4680 AACO24680 AACO2402307 AACO2307 AACO2307 AACO2307 AACO510109 AACO110109 AACO110909 AACO11090000000000000000000000000000000000
schu568-1.rng	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
schu56	Human TSG16 PCR pr Human cyclin E ant Latchearillus app 1 Mouse caspase 8 mg Zmaxi gene region Human genomic DNA Human genomic DNA Human genomic DNA Human associat Human oligomucleot Human ised lococlage KSHV DNA polymeras Human ised to cola Human single much Human ogene single Human ogene single
2004	AAH2730S AAH27138 AAH27138 AAH27138 AAH27448 AAH27448 AAH12441 AAH82119 AAH77260
2:03	
10:3	
Jul 30	
Fri	00 000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

PCR primer used to Human PD-ABC form Human PD-ABC form Wnt4 RT-PCR primer Mouse Survivin ant	PCR primer mVMGLOM Forward PCR primer	Human chromosome 1 Human HDA1 antisen	Rat derived nucleo Mouse R1-OS-B1-B2	3' primer to ampli 5-HT recentor PCB	Mouse BAX chimeric	Primer #15 used to RT-PCR primer NS1-	Oligonucleotide pr	Probe to N-termina Unique 5' PCR prim	Murine Kin17 oligo	Human KDR VEGF rec	Oligonucieolide pr Primer used in the	Human RhoC phospho	Human G-alpha-11 p	For primer for number to	G-alpha-il antisen	Human CD44 antisen	Prostate cancer di Himan DID-1 antise	Human biallelic ma	TRADD antisense ol	Fragment of the 16	Fragment of the 16 Himan hetal-adreno	Rho C antisense ph	Glucanase genomic	Sample member clus	Human genomic DNA	Nucleic acid synth	Oligonucleotide 48 Primer Oligo used	Oreochromis niloti	Corynebacterium Sp	hass spectrometric	Human genome biall	Cyclin Dl ribozyme	Cyclin F ribozyme	Cyclin F ribozyme	CACLIII F LIDOZYWE CAC 25 hs ribozywe	Human biallelic ma	Human bol genes an	Cyclin D1 ribozyme	Cyclin F ribozyme	Cyclin F ribozyme	Cdc25 hs ribozyme	Cyclin D1 ribozyme	HIV-I related bind DCP primer WHP3 us	Human TGF-beta bin	IL5-1	Human repair gene	o Unc-E	R primer	reochromia				
1 AAZ03026 1 AAS08838 1 AAS08747 1 AAD21081 1 AAS21716																																																					
00000	200	50 50 70	70 70 70	000	20	200	18	7 B	18	8 6	2 C	1 8	18	α 	18	18	œ e	9 6	18	18	9 6	9 60	18	138	19	18	1.0	9 69	61	ο σ - 1 π	11	6 6	n б	6,4	γ ο	19	9 5	H H	61	ტ ი ე	H H	O (U -	л Б Т	13	n -	H H	0.0	10		٠.		
4444 6666	1.6	1.6	1.6	9.4	1.0	9.4	1.6		1.6	9.7		1.6	1.6	9.4	9.1	1.6		9 40	9.	1.6	φ. Η -		1.6	9.4		1.6	9 4	9.4	1.6	9 4	1.6	9.	1.6	1.6	9 4	1.6	9.1.	1.6	1.6	9.4	1.6	1.6	9.1	. H	٦. ا	9.4	9 4	9.0	1.6			Jergin Jergin	٠
4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.	m m	m m		m c	. n	m r		. ო	. m	ش ر	'n w	. n	m 1	, ,	. n	m.	. ი	. m	. n	m.	. ი	. n	. m	m .	. n	m'	" ო	. m	ش	'n	. w	ش ر	'n'n	٠. ش	'n.	<u>ښ</u>	ش	. n	ω.	m m	. n	<u>.</u>	m r	. n	έ.				m.			era Ta Ta	-
c 618 c 619 c 620 c 621	623		c 627			632	634	635 7.5		c 638	0 0 0 0 0 0 0 0		c 642		645			0 649		.651		654	c 655	656	658		C 660	662		0 664 665			0 669 0 669					c 675 c 676		G 678				C 683 684		C 686		c 689			-	g) 150- 181	
Human dual specifi Human p38-beta MAP Human HBM STS mark Antisense oligonuc PKA reculatory sub	Corynebacterium gl Human inhibitor-ka	Human MyD88 antise Sequence tagged si	Human chemokine re Oligonusleotide se	Oligonalectide an	Human mdm2 antisen	Human TYRP2-target HSD11R1 anticense	Type II procollage	Type II procollage	Substrate for hamm	IGFBP2 oligonucleo	Hepatitis C virus TEG-terminated exo	Human genomic SNP	Human NOGO Zinzyme	Human NOGO Inozyme	LDLR mutation corr	LDLR mutation corr	LDLR mutation corr	LDIR mitation corr	Human GRID NCH rib	Oligonucleotide hy	Oligonucleotide hy	Human GDMLP-1 17-m Human GDMLP-1 17-m	Human GDMLP-1 17-m	Human GDMLP-1 17-m	reduced parmitate Reduced palmitate	Human ERG Amberzym	Human ERG Amberzym	Tumour suppression	Tumour suppression	Human MDZ4 scannin Himan MDZ4 scannin	Human HERZ DNAzyme	HCV minus strand D	Murine olidonucleo	Murine oligonucleo	Rabbit Deta-globin Rabbit beta-globin	Rat PLA2s primer,	Human ELK-1 phosph	S. typhimurium 238	HIV-1 related bind	Human multidrug re	Generated 18 nucle	Human AD4 gene PCR	Serotonin 5HT7 rec	NOVA gene analysin Stearovl-CoA desat	Stearoyl-CoA desat	PCR primer CFX 10-	Chromosome ii (loc HIV-l integrase de	e nuclea	at-6 ant	5	`	でからなる経験には	
1 ABX09139 1 ABX78105 1 ACC45571 1 ABX34260																																																					
00000	000	0 7 7 8	0 0	000	20	0 0	21	21	15	15	15	17	17	17	17	17	17	17	17	17	17	17	17	17	17	11	71	, _L	17	17	17	17	17	17	17	18	18	18	18	6 6	98	19	ი c	5 T	19	19	2 6	50	20				
99999																				•				•								•		•	•				•	•		•	•	•	•	•	•	٠.	•				
13.6 13.6 13.6		е e	m m	 . m c	. n	ش د	. n	ش د	. n	٠ ش		. n	ς.	m .	, ~	m	m c		. n	ω.	m 1	٠, ٧,	. m	m (ოო	· ~	. ი	. n	Ä.	m		m d	. n	m.		. n	m (n m	, M	ش د	. n	'n.	٠ ش ر	ب س	m	m d	m (r	. n	m.				
0 0 0 0 5 4 6 5 5 4 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	സസ	വവ	ด 554 ภรร	0 22 0	ט וט	559	'n	n n	c 564	N I	C 566	חנח	c 569	LO U	വ	c 573	574	U I	0,75 D	578	579	58.0 58.0 18.0	582	c 583	חנט	ı LO	C 587	വവ	Ŋ	591	c 593	N I	0 0 0 0 0 0 0 0	597	n n 0 0 0 0	c 600	601	602 603	604	605	607	c 608	w	G 610	Ψ	613	ωv	c 616	ø				

Mouse PCR primer p Human CYP206 gene Human CYP206 gene Human CSP206 juhib Mouse 14273 revers Human E2F transcri Feline CD28 PCR pr Chimeric phosphoro Feline CD28-768 RT Human cytohesin-1 Capture oligonucle Capture oligonucle Capture oligonucle Human oligonucleot Human G-protein co
human GH-1 gene am
Chimearic antrisense
Wheat glutathione
Tumour necrosis fa
human HER-3 coding
Antisense oligo
Primer/probe 4bD3
Wouse TGF-beta rec
OMD 03 polymorphis
Human mdm2 antisen
Human mdm2 antisen
Human mdm2 antisen
Human dprotein co
Oligonuclectide SE
Oligonuclectide SE
Oligonuclectide SE
Oligonuclectide SE
Oligonuclectide SE
Integrin subunit b
Substrate for HH r
IGF-1 oligonuclect
Human ILARalpha ge
Human RPRI gene all
Hepatitis C virus Human chromosome 1
Human chromosome 1
Human damage speci
Human forward PCR
Human forward PCR
Unian reverse PCR
Oligonuclectide JC
Trehalose synthesi
LAKC receptor (CCR
Candida albicans G Human oligonucleot Human oligonucleot Human Ali chimeric Human PLA2 antisen Elite event EB-GH1 Mouse src-c chimer Antisense oligonuc 3' primer to ampli Human alphoid cons Human HNC10 cons Human HNC10 coll T

Oligonucleotide hy Human GDMLP-1 17-m Human CLCA1 gene e Human GDMLP-1 scann Tumour suppression Tumour suppression NFKB sub-unit modu NFKB sub-unit suppression Tumour suppression Tumou	STK 8 gene specifi STK 12 gene specifi STK 9 gene specifi Human AKT-1 phosph
910 12.8 1.5 17 1 AMENO148 912 12.8 1.5 17 1 AMENO148 913 12.8 1.5 17 1 AMENO1795 913 12.8 11.5 17 1 AMENO1795 913 12.8 11.5 17 1 AMENO1795 91	12.8 1.5 18 1.5
Hepatitis B virus Human CALMI game a Integrin subunit b Hammerbad ribozym Human GDMLP-117-m Human DOMLP-117-m Human DOMLP-117-m Human prostaglandi Target probe 8. S Human Smad-7 antis PCR primer 2. Synt CF primer 1. Synt CF primer 2. Synt CF primer 2. Synt CF primer 2. Synt CF primer 1. Synt CF primer 2. Synt CF primer 2. Synt CF primer 1. Synt CF primer 2. Synt CF primer 2. Synt CF primer 2. Synt CF primer 1. Synt CF primer 2. Synt CF prim	Human NGGO Inozyme Human NGGO Inozyme PCR primer 415 use Human prostaglandi
837 13 1.6 15 1 AAK30004 838 13 1.6 15 1 AAK30004 844 13 1.6 17 1 AAK30035 844 13 1.6 17 1 AAK30335 855 13 1.6 17 1 AAK30335 855 13 1.6 17 1 AAK30335 855 13 1.6 17 1 AAK30337 AAK3037 AA	06 12.8 1.5 17 1 07 12.8 1.5 17 1 09 12.8 1.5 17 1 09 12.8 1.5 17 1

18 1 AAZ	AAZ10941 AAX01403	PCR primer for Pax PCR primer Syk-H f Himan Akt-1 mPNa i	C1056 C1057	122.6	2.4.5	9 9 9	1 AAT40017 1 AAX91411 1 AAX61872	Human KAll gene ex T. gondii MGIS4-4 Twne-specific HPV
ם מס מ	222203 362614 272978	Human OB gene segu Human biallelic ma	1050				1 AAZ39640 1 AAZ37632	Human Vth aggregat HIV-1 protease der
i ⊢ o œ	276819	Human biallelic ma	1061	N I	1.5			HIV-1 protease gen
പ പ	274871 256420	Human biallelic ma Escherichia coli H	1062	, n	1 .5 2 .5			Frimer used to amp Cdc 25 hs ribozyme
		Human OB DNA PCR p	C1064	40	2.5			cdké ribozyme bind
 8 0	. 52534 H63028	Shrimp white spot	c1066		1.5			cdk6 ribozyme bind
e .	H26010	PCR primer Syk-M f	C1067	4.0	2.5			Cyclin F ribozyme
- I -	140053	SNF Specific upper Primer PC2 to amol	69010	, ,	. T			Cyclin D2 ribozym
	L43118	Human chromosome 1	C1070	i Ni	1.5			cdk7 ribozyme bind
	X89568	Human sequence tag	1071	o, o	2.5			Human biallelic man
 	K30214 .61442	CYP2D6 gene polymo	1072	, i	 			PCR primer used to
	F63207	Human p53 PCR prim	C1074		1.5			Hepatitis viral DI
8 1		Mouse BSP PCR prim	C1075	ά.	1.5			Sequencing primer
	X96428	Human obese (ob) g	c1076	oi o	 			Beta-actin DNA am
		Herbicide resistan	01077	, c				Cvelin F ribozyme
- c	713434 354019	Oliconolectide 11	01079					Cyclin F ribozyme
	E15148	Beer spoilage-asso	c1080	N	1.5			Cell-cycle depend
1 8	E84057	Human lymphoid cel	C1081	'n	7.5			Cell-cycle depende
9	285689	Intronic primer fo	c1082	ά,	1.5			Cyclin D2 ribozyme
С .	289435	Human aspartoacyla	C1083	ni c	 			Cell-cycle depend
, r	FOUL / /	Hepatitis GB Virus Corvnebacterium sp	C1085	, N	 			Cdc25 hs ribozyme
. 0	142922	Primer for HGBV-C	c1086					Arabidopsis thalia
1	V58226	Lactobacillus sp.	1087	ď.	1.5			Nucleotide seguen
6.6	K84272	PCR primer for hum	c1088	તં ત	Ω ι			Species specific l
w 0	470837 890059	Molecular interact	1089	, c	4			Human chromosome
n on	430038 484731	Cyclin E ribozyme	1091					SSO probe for the
. 6	484947	Cýclin F ribozýme	C1092	ď.	1.5			Human GPCR PF1-01
ы п	486018	Cdc 25 hs ribozyme	1093		ų. Ni			Human PD-1 oligon
⊣ ກ ຫ	484553 486017	Cdc 25 hs ribozyme	C1095		1.5			Human target NLj3
. 0	10001, 1555445	Hepatitis GB virus	1096		1.5			Flea ecdysone rec
. 6	275011	Human biallelic ma	C1097		1.5			Human glial cell
o 6	270524	Human biallelic ma	C1098	•	5,5			Human orphan G-pr Human beta-actin
 	466571	Log genomic marker	CTORR		٠ ٠ ٠			Human latrophlin
א פ	488518 461179	Cdc25 hs ribozyme	01101		1 1			Human latrophlin
1 11	160109	Cyclin F ribozyme	c1102		1.5			Brassica rapa rel
ر ا	461180	Cdc25 hs ribozyme	1103		1.5			Mouse neuromedin
n 0	459893	Cyclin E ribozyme	CITO4					nov couling region
л o	15 y / Z 5	Cycill B ilbozywe	1100 1100					HCV coding region
٠ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲	68888	HIV-1 related bind	C1107		1.5			Human vLamba PCR
7	188902	HIV-1 related bind	c1108		1.5			Human alpha-actin
ы Н	149607	Tumour differentia	c1109	٠	5.1			Human EZF-Z gene
ο ν ο	106298	Human NOVX COAING	01110					Human GH-1 gene a
-1 r-	277777	Servi-rana synthet	C1112		, L			Human abl intron
, o	001652	Human IGPCR32 cDNA	1113		1.5			PCR primer used t
1	<74998	Human gene 216 pol	1114	•	1.5			PCR primer used t
1	222485	Bovine papillomavi	C1115	•	1.5			Sequence of minim
6	365560	Human c-fos transc	c1116		٠. دن،			Anti-gammarde cod
 	20076 2007 2007 2007	Mitogon actimated	CTTT/	•				Human rela hammerh
	329619	Mitogen activated	C1119	12.4	1.5			Human relA hammer
н Н	297303	Oligonucleotide SE	C1120	٠.	1.5			HLA-DR typing pro
3	777924	Oligonucleotide SE	1121		1.5			HLA allele, HLA-D
н 8	297302	Oligonucleotide SE	c1122	12.4	٠. د			Vader transposon 5
	77/925	Uligonucleotide SE	1124	12.4	יי. היי			ErbB-2 dene antis
	394583	Human PLTP gene al	c1125	12.4	1.5			R70 u
1 6	238855	Sequence of primer	c1126	12.4	1.5			Substrate for hamm
9	271966	Human IL-2R gamma	c1127	12.4	1.5			Substrate for namm

Tumour suppression Tumour suppression Tumour suppression NFKB sub-unit modu Human MD24 scannin Human MD24 scannin Human HER2 DNAzyme Human TNF-alpha ha Primer For amplifi Tumour suppression Tumour suppre	PCR primer for G. Human glyceraldehy Glyceraldehyde-3-p Primer RGAPDHF use Human biallelic ma Human biallelic ma Human biallelic ma Antisense PCR prim Human G-alpha-i3 a GAPDH sense primer Human MLP exon 2 m Human Akt-3 antise Bovine-derived DNA GAPDH PCR primer Human Akt-3 antise Bovine-derived DNA GAPDH PCR primer # Otoferlin exon PCR Human otoferlin ex
1202 12.4 1.5 17 1 ABT3 7801 12.6 12.4 1.5 17 1 ABT3 7801 12.6 12.4 1.5 17 1 ABZ 6427 12.0 12.4 1.5 17 1 ABZ 6427 12.0 12.4 1.5 17 1 ABZ 6487 12.0 12.2 12.4 1.5 17 1 ABZ 6486 12.2 12.4 1.5 17 1 ABZ 6487 12.2 12.4 1.5 18 1 AAZ 6487	22.2.1.1.2.2.2.4.4.4.4.4.4.4.4.4.4.4.4.4
IGFBP2 oligonucleo IGF-1 oligonucleot Mutant capture oli HLA-DR typing prob Huba-DR typing prob Hepatitis C virus Lectobacillus brev Complementary huma Probe HBPr21 for G Prob pyrimer for G Prob HPPr21 for G Prob HPPr21 for G Probe HBPr20 for G Probe HBPr20 for G Probe HBPr20 for G Probe HBPr20 for G Human proteaseme a HLA-DR beta sub-ty HLA-DR b	
2.4 1.5 15 1 AAF45604 2.4 1.5 15 1 AAF53209 2.4 1.5 16 1 AAF53203 2.4 1.5 16 1 AAF53203 2.4 1.5 16 1 AAF53203 2.4 1.5 17 1 AAF05203 2.4 1.5 17 1 AAF02203 2.4 1.5 17 1 AAF0203 2.4 1.5 17 1 AAF0333 2.7 1 AAF03333 2.7 1 AAF033333 2.7 1 AAF033333 2.7 1 AAF033333 2.7 1 AAF033333 2.7 1 AAF033333333333333333333333333333333333	

Tumour suppression Tumour suppression Tumour suppression Tumour suppression NFKB sub-unit modu	Human MDZ3 scannin Human MDZ12 scannin Human MDZ12 scannin Human MDZ12 scannin Human MDZ13 scannin Human MDZ3 scannin Human MDZ7 scannin Human MDZ7 scannin Human HBZ2 SCANTIN Human HBZ2 DNAZYME Human HBR2 DNAZYME Human HBR2 DNAZYME	Human K-Ras DNAZYM Human HERZ DNAZYM Human HERZ DNAZYME Human HERZ DNAZYME HUWAN HERZ DNAZYME HUWAN HERZ DNAZYME HUWAN HERZ DNAZYME HUW INOZYME SUBSET HUW MINUS SETRAND D HUW MURINE OLIGONUCLEO MURINE OLIGONUCLEO MURINE OLIGONUCLEO MURINE OLIGONUCLEO MURINE OLIGONUCLEO MURINE OLIGONUCLEO	Murine oligonucleo Tumour suppression Tumour suppression Tumour suppression Tumour suppression Tumour suppression Tumour suppression	
12.2.2.1.5.1.5.1.7.1.1.5.2.2.1.5.1.5.1.5.1.7.1.1.5.2.2.1.5.1.5.1.7.1.1.5.1.7.1.1.5.1.7.1.1.5.1.5	12.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.22.22 1.23.22	12.2 1.5 1.7 1.1 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	01540 12.2 1.5 17 1 ACC654053 1543 12.2 1.5 17 1 ACC64403 1544 12.2 1.5 17 1 ACC64403 1544 12.2 1.5 17 1 ACC64156 1545 12.2 1.5 17 1 ACC64156 1547 12.2 1.5 17 1 ACC6529 1548 12.2 1.5 17 1 ACC65958 1550 12.2 1.5 17 1 ACC65950 1551 12.2 1.5 17 1 ACC65950 1552 12.2 1.5 17 1 ACC64053 1553 12.2 1.5 17 1 ACC64053 1554 12.2 1.5 17 1 ACC64053 1555 12.2 1.5 17 1 ACC67048 1556 12.2 1.5 17 1 ACC67048 1551 12.2 1.5 17 1 ACC67048 1551 12.2 1.5 17 1 ACC67048 1552 12.2 1.5 17 1 ACC67048 1553 12.2 1.5 17 1 ACC67048 1554 12.2 1.5 17 1 ACC67048 1555 12.2 1.5 17 1 ACC67048 1556 12.2 1.5 17 1 ACC67048 1557 12.2 1.5 17 1 ACC67048 1558 12.2 1.5 17 1 ACC67048 1559 12.2 1.5 17 1 ACC67048 1551 12.2 1.5 17 1 ACC67048 1552 12.2 1.5 17 1 ACC67048 1553 12.2 1.5 17 1 ACC67048 1554 12.2 1.5 17 1 ACC67043 1555 12.2 1.5 17 1 ACC67043 1556 12.2 1.5 17 1 ACC67043 1557 12.2 1.5 17 1 ACC67043 1558 12.2 1.5 17 1 ACC67043 1559 12.2 1.5 17 1 ACC67043 1550 12.2 1.5 17 1 ACC67043 1550 12.2 1.5 17 1 ACC67043 1551 12.2 1.5 17 1 ACC67043 1552 12.2 1.5 17 1 ACC67043 1553 12.2 1.5 17 1 ACC67043 1554 12.2 1.5 17 1 ACC67043 1555 12.2 1.5 17 1 ACC67043 1556 12.2 1.5 17 1 ACC67043 1556 12.2 1.5 17 1 ACC67043	
GDMLP-1 17-m	GDWLP-1 17-m GDWLP-1 17-m GDWLP-1 17-m GDWLP-1 17-m KTOMIA porti KTOMIA se 1 Pp-GaNTase 1 Pp-GaNTase 1 Pp-GaNTase 1 Pp-GaNTase 1 HTPL scannin HTPL scannin HTPL scannin HTPL scannin HTPL scannin HTPL scannin	Exch hammerhe ERG hammerhe ERG hammerhe ERG hammerhe ERG danberzym anse oligonuc PAPP-Ea asso PAPP-Ea asso POSHL1 scann POSHL1 scann POSHL1 scann POSHL1 scann HLA genotypi HLA genotypi CLCA1 gene e	n CLCA1 gene e n CLCA1 gene e n CYP24 3'UTR n tumour suppr	
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	v.v.v.v.v.v.v.v.v.v.v.v.v.v.v.v.v.v.v.	លល់ល់ល់ល់ល់ល់ល់ល់ល់ល់ល់ល់ល់ល់ល់ល់ល់ល់ល់ល	
			1467 12.2 11467 12.2 11468 12.2 112.2 11473 12.2 114747 12.2 112.2 1147474 12.2 114747 12.2 11474 12.2 11488 12.2 11488 12.2 11488 12.2 11489 12.2 11489 12.2 11489 12.2 11489 12.2 11489 12.2 11489 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11499 12.2 11.2 11.2 11.2 11.2 11.2 11.2 11	

green al fire date of the

Nucleotide sequence Human secreted or Human PRO PCR prim Human PRO PCR prim Human PRO PCR prim Human pro361 speci Human pro PCR prim Novel human secreted and Human pro DNA PCR Human secreted and Human secreted/tra Human secreted/tra Human pro361 pCR Human secreted/tra Human pro DNA PCR Human pro DNA PCR Human pro DNA PCR Human pro DNA PCR Human secreted/tra Human pro DNA PCR
ABX 4175 ABX 41375 ABX 41375 ABX 476716 ACX 43191 ACX 431151 ACX 64371 ACX 68130 ACX 88579 ACX 88579 ACX 88579 ACX 88579 ACX 86310 ACX 86310 ACX 86310 ACX 86310 ACX 86310 ACX 86310 ACX 86310 ACX 86310 ACX 86310
0.0100 0.0100 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000 0.01000
Antiesnse objective randing subsequent by the man per antise human per antise human per antise human insulin gene sindbis-like virus Cre gene sequencial per primer used to SPINKS gene objective subsequence per primer used to SPINKS gene objective assumen Akt-3 antise human Akt-3 antise human Akt-3 antise human Akt-3 antise shrimp white spot sNF pecific lower
000 000 000 000 000 000 000 000 000 00
AAF19805 AAC6666 AAC60621 AAC60621 AAA72067 AAA72060 AAA72060 AAA73060 AAA73060 AAA73060 AAF58868 AAF58868 AAF79636 AAF79636 AAF79636 AAF79636 AAF79636
สนนนนนนนนนนนนนนน ขั้นทั้นที่ที่ที่ที่ที่ที่ที่ที่ที่ที่ที่ที่ที่ท
, и и и и и и и и и и и и и и и и и и и

1786 11.2 1.3 17 1 ADB42377 Tumour suppression	ALIGNMENTS	∴ SESTITION OF THE PROPERTY O	\$71444 / C		AC AAA71444; XX	DT 01-DEC-2000 (first entry)	DE Human megsin promoter PCR primer SEQ ID NO: 11.	XX XX Promoter; megsin; human; protein isolation; screening. PCR primer; ss.	XX OS Homo sapiens.	OU COM		PD 27-JUL-2000.		PR 25-JAN-1999; 99JP-00015667.	AA (KURO/) KUROKAWA K. PA (MIYA) MIYATA T	•		DR WPI; 2000-543257/49. XX	PT DNA for promoter region of megsin useful for screening proteins. $\chi\chi$	PS Example 5; Page 38; 45pp; Japanese.	This invention describes a novel DNA sequence (I) representing a promot		above vector, and (3) protein produced using (I). (I) is useful for screening and isolating proteins (especially transcription factors)			Sequence 30 BP; 6 A; 10 C; 5	Query Match 2.5%; Score 21; DB 1; Length 30; Best Local Similarity 82.8%; Pred. No. 20;		Qy 266 GAGCACCTICAGAAAGTTGTTGAAACTTG 294	Db 30 GAGCAGCTTCAGATAGGAGCTGAAACTTG 2		RESULT 2 ABK65992/c	ID ABK65992 standard; DNA; 27 BP.	AC ABK65992;	DT 02-JUL-2002 (first entry)	DE Human gene specific PCR primer #80.	XX KW Primer, 88; DNA microarray; differential expression analysis; human.	XX OS Homo sapiens.	XX PN US6352829-B1.	 Thing is a second of the secon
Human secreted/tra Human secreted/tra	Human secreted/tra Human secreted/tra	Human PRO 361 PCR Human Rocreted/tra	Human secreted/tra	Human rko rck prim Hybridisation olig	Primer oligo used Primer oligo used	Human PRO PCR prim									Human PRO PCR prim Human PRO PCR prim Human PRO PCR prim	Human PRO PCR prim	Beer spoilage-asso	human secreted/tra Novel human secret	Human lymphoid cel Novel human secret	Human secreted/tra	Cyclin F ribozyme	Arabidopsis thalia Short interfering	Tumour suppression Sense primer for i	Antisense primer f	Human GRID NCH rib	Human chromosome 1 PCR primer for hum	Human IL-2R gamma PCR primer used to	Murine SACI gene-s	Human Her-1 antise	Mouse pancreacic p Human helicase-moi	Human myoglobulin Human GDMLP-1 25-m	Human GDMLP-1 25-m Human GDMLP-1 25-m	Human POSHL1 scann Human biallelic po	Antisense inhibiti	Cyclin D2 ribozyme	PCR primer P24 to	uman j -prot	G-protein coupled Human GDMLP-1 17-m	Human GDMLP-1 17-m NFKB sub-unit modu	ない ないない 大変なない
8 80	18 1 ADA93092 18 1 ACH65647 18 1 ADA9263							-i		60 60		പപ	. co a	1				 	60 60	e0 o	, 60	2 2	11	0 ~	. L.	 	66	.00			4. W		1.6			 	16,		7	
12.2	C1715 12.2 1.5 C1716 12.2 1.5	122.2	12.2	12.2	12.2 1.	12.2 1.	12.2	12.2	12.2 1.	12.2	12.2	12.2	12.2	125.2	12.2	12.2	122.2	12.2 1.	12.2 1.	12.2 1.	12.2	12.2 1.	122	122 1.	11.8	11.8	11.8	11.8	11.6	11.6	11.6	11.6 1.	11.4 4.11	4.11.	11.4	11.4	111.2	11.2	11.2	

```
The present invention relates to nucleic acid sequences encoding human peptide histidine transporter 1 (hPHT1) protein, the hPHT1 proteins and methods for using them. The nucleic acid sequences of the invention are is useful for screening a test compound for human PHT1 modulating activity. The hPHT1 proteins are useful as a target for evaluating activity. The hPHT1 proteins are useful as a target for evaluating peptide based drug transport. The functional characterisation of hPHT1 and the ability to correlate the Michaelis-Menten kinetics for a particular substrate to the molar expression level of hPHT1 provides crucial information regarding the ability of this transporter to facilitate the uptake and transport of peptides and peptide-based drugs. The PHT1 proteins facilited peptide transport across cell membranes in the gastrointestinal tract and other organs in which they are expressed. The identification of full length hPHT1 clone facilitates the development of optimal peptide-based drugs for treating patients with hPHT1-related of diseases. AAS20912-AAS20925 represent PCR primers used in the methods of
                                                                                                                                                                                                                                                                                                Novel isolated human peptide histidine transporter which facilitates peptide transport across cell membranes in gastrointestinal tract, useful as target for evaluating peptide and peptide-based drug transport.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         : anterior pituitary hormone; hypertension; autoimmune disease; failure; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human anterior pituitary hormone-related polypeptide primer LF2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.2%; Score 18.2; DB 1; Length 27; 87.0%; Pred. No. 73; ative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 27 BP; 2 A; 10 C; 9 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hinuma S, Fukusumi S, Fujii R, Hosoya M;
                                                                                                                                     (RUTF ) UNIV RUTGERS STATE NEW JERSEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           377 GGCCGTCCTGCTGGCGGCACAC 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23
                                                                                                                                                                                                                                                                                                                                                                                                                Example 3; Page 57; 95pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gecerrecreersected
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-DEC-1999; 99JP-00358707.
18-FEB-2000; 2000JP-00046825.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-DEC-2000; 2000WO-JP008896.
                       31-MAY-2001; 2001WO-US017650
                                                                                31-MAY-2000; 2000US-0208061P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TAKE ) TAKEDA CHEM IND LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAH46587 standard; DNA; 27
                                                                                                                                                                                              Knipp GT, Herrera-Ruiz D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 87.0
Matches 20; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the present invention
                                                                                                                                                                                                                                                WPI; 2002-130529/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200144475-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-JUN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAH46587;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   heart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAH46587
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to producing a Sub-population of labeled nucleic source, with a pool of 50 distinct gene specific primers under suitable conditions to enzymatically generate sub-population of Nas, where each each labeled NA is generated using a single gene specific primer. The method is useful for producing a sub-population of labeled NAs which is useful for analysing the differences in the RNA profiles between several different physiological sources, where the method comprises producing subpopulation of labeled NAs for the different physiological sources, where the method comprises producing subpopulation of labeled NAs for the different physiological sources, omprising the populations for each physiological sources, of it is preferred by hybridising the labeled NAs for each proposal source to identify differences in the population, where the comparison is preferably subjected by hybridising the labeled NAs for each of the distinct physiological sources to an array of probe NAs stably associated with the surface of a substrate to produce a hybridisation pattern for each of the surface of a substrate to produce a hybridisation pattern for each of the sources, where conferences, and comparing the patterns for each of the sources, under tissue or subfissue types. The present sequence is a tissue, or different tissue or subfissue types. The present sequence is a thus agene specific PCR primer used in the method of the invention. Note: The sequence data for this patent did not form part of the printed specific promined in electronic format directly from USPTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                              Producing sub-population of labeled nucleic acids, useful for analyzing differences in RNA profiles between several different physiological sources, using set of distinct gene specific primers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       relates to producing a sub-population of labeled nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; peptide histidine transporter 1; hPHT1; peptide transport;
peptide-based drug transport; cell membrane; gastrointestinal tract;
hPHT1-related disease; PepT1; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            at http.wipo.seqdata.uspto.gov/sequence.html?DocID=6352829B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 y Match 2.3%; Score 19; DB 1; Length 27; Local Similarity 81.5%; Pred. No. 48; or Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human peptide transporter PHT1 cDNA antisense PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 27 BP; 7 A; 8 C; 6 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                      Bibilashvilli R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        174 GCTGACAGTCACAGTGGCCGGGTCAGT 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gcagacagrcacacrcgcrrrggrcagr 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 3; SEQ ID NO 80; 11pp; English
                                                                                      99US-00225928
                                                                                                                                              97US-00859998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAS20921 standard; DNA; 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                         Jokhadze G,
                                                                                                                                                                                                   (CLON-) CLONTECH LAB INC
                                                                                                                                                                                                                                                                                                              WPI; 2002-314699/35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200192468-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             invention
                                                                                         05-JAN-1999;
                                                                                                                                                 21-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-APR-2002
                                05-MAR-2002
                                                                                                                                                                                                                                                         Chenchik A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-DEC-2001
```

AAS20921;

AAS2092:

Query Match

8

ö

Gaps

. 0

0

Gaps ö

2; Indels

DB 1; Length 24;

Score 17.8; I Pred. No. 74; 0; Mismatches

2.1%;

GITITATGAGT 950

Sequence 24 BP; 5 A; 0 C; 6 G; 13 T; 0 U; 0 Other;

Exbp protein 12.87. The invention also comprises a method for producing the polypeptide by recombinant DNA technology. The polypeptide is useful in treating malignant tumours, haemopathy, human immunodeficiency virus infection, immunological diseases and various inflammations. Also disclosed in the invention is an antagonist to the fkbp protein and a method for its use. The present sequence represents a reverse transcriptase (RT) PCR primer used to isolate the human fkbp 12.87 cDNA of the invention This invention relates to the DNA and protein sequences of a novel human New human fkbp protein 12.87 and encoding polynucleotide for treating malignant tumors, hemopathy, human immunodeficiency virus infection, immunological diseases and various inflammations. Example 2; Page 17 (disclosure); 33pp; Chinese. WPI; 2002-714435/78. WPI; 2001-408485/43 Mao Y, Xie Y; 07-JAN-2003 Homo sapiens CN1352169-A. 05-JUN-2002 ABS54833; RESULT 5 엄 ò

```
New array of nucleic acid probes, useful for in situ hybridization, in Southern, Northern or dot-blot hybridization to identify or detect the sequence or specific mutations of any gene.
                                                                                                                                                                                                                                                                                                                         EST; ss; probe; expressed sequence tag; microarray; gene (genetic variation; biallelic marker; polymorphism; human;
                                                                                                                                                                                                                                                                                          Human microarray DNA oligonucleotide SEQ ID NO 98644.
                                                                                            4 TTAAGGTTTTATTTATGAGT 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-MAR-2002; 2002US-00098263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-MAR-2001; 2001US-0276759P.
                                                                                                                                                                                       ACI98653 standard; DNA; 25
                                                                                                                                                                                                                                                          (first entry)
Query Match
Best Local Similarity 90.5
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                              cross-species comparison.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (AFFY-) AFFYMETRIX INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-567953/53.
                                                                 930 TICAGGITT
                                                                                                                                                                                                                                                                                                                                                                                                                             US2003104410-A1.
                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                          14-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mittmann MP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-2003.
                                                                                                                                                                                                                       ACI98653;
                                                                                                                                                                     ACI98653
ID ACIS
                                                                   Š
                                                                                                g
                                                                                                                                                                                                       ö
                                                                             The invention relates to a novel polypeptide comprising a fully defined 130 amino acid sequence given in the specification and its amides, esters and size. The polypeptide has anterior pituitary hormone-related activity. It is useful for the treatment of hypertension, autoimmune diseases and heart failure. The screening method and kit also provided in the invention are useful for identifying new substances for treating and preventing these diseases. The present sequence is a primer used to isolate the nucleotide sequence encoding the polypeptide of the invention
Polypeptides for treatment of hypertension, autoimmune disease and heart
                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; ss; fkbp; 12.87; malignant tumour; haemopathy;
human immunodeficiency virus; HIV; infection; immunological disease;
inflammation; RT-PCR; primer; reverse transcription.
                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                       2.2%; Score 18; DB 1; Length 27;
80.8%; Pred. No. 81;
tive 0; Mismatches 5; Indels
                                                                                                                                                                                                                                        Sequence 27 BP; 8 A; 6 C; 9 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human fkbp 12.87 specific RT-PCR primer #1.
                                                                                                                                                                                                                                                                                                                                           461 GGAAGAGCTCCAGGAACTTGGCATTC 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BODE-) BODE GENE DEV CO LTD SHANGHAI.
                                               Example 1; Page 79; 107pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                          GGAAGAGCAGCATGAAGCTGGCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-NOV-2000; 2000CN-00127372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-NOV-2000; 2000CN-00127372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABS54833 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                           21; Conservative
                                                                                                                                                                                                                                                                                          Local Similarity
```

The invention discloses a microarray comprising a plurality of nucleic acid probes including one of 2,018 500 fully defined sequences, or its perfect match, perfect mismatch, antisense match or antisense mismatch. Also disclosed is a method of gene expression analysis. The array is used in analysis of genetic variation or in pybridisation to a DNA library, in analysis of genetic variation or in hybridisation of tag-labelled compounds. The nucleic acid probes are specifically designed for analysis of at least one target sequence. The method of analysis comprises the probes and detecting the hybridisation. The nucleic acid probes are atlached to a solid support. The analysis comprises moritoring gene expression levels, identifying biallelic markers or polymorphisms, or family members of a gene and a cross-species comparison. Each of the nucleic acids further comprises a tag sequence. The array of nucleic acid further comprises a tag sequence. The array of nucleic acid further comprises a tag sequence. The array of nucleic acid further comprises a tag sequence or specific or probes is useful in in situ hybridisation, in Southern, Northern or dottores of any gene, in mapping the 5' termini of mRNA molecules by containing compared in the microarray. Note: The sequence of the isolated and previously sequenced. The sequence presented is one of the involetic acid probes incorporated in the microarray. Note: The sequence of the form this patent can also be obtained in electronic format directly from USPTO at sequence. Thml Sequence 25 BP; 9 A; 4 C; 9 G; 3 T; 0 U; 0 Other; Claim 1; SEQ ID NO 98644; 9pp; English.

```
The invention relates to the polypeptide DNA topoisomerase II (TOP2) 21.34, a polymuclectide encoding the polypeptide and a method for producing the polypeptide by DNA recombination technology. The polypeptide is used for curing several diseases, such as malignant tumours, haemopathy, development disturbance, human immunodeficiency trunk [HIV] infection, immunological diseases and various inflammations. This sequence represents a reverse transcriptase PCR (RT-PCR) primer used in isolation of CDNA encoding DNA topoisomerase II (TOP2) 21.34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Determining a toxicological response to an agent, useful for screening of
                                                                                                                                                                                                                                                                                              New polypeptide-DNA topoisomerase II (Top2) 21.34 for treating malignant tumor, hemopathy, development disturbance, human immunodeficiency virus infection, immunological disease and various inflammations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Toxicologically relevant gene; toxicological response; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2.1%; Score 17.2; DB 1; Length 24; ilarity 86.4%; Pred. No. 1e+02; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kier LD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seguence 24 BP; 6 A; 6 C; 8 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Toxicologically relevant human PCR primer #1402.
                                                                                                                                                                                                                                                                                                                                                                            Example 2; Page 18 (Disclosure); 34pp; Chinese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pickett GG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (PHAS-) PHASE-1 MOLECULAR TOXICOLOGY INC.
                                                                                                                                                                                     (SHAN-) SHANGHAI BIOWINDOW GENE DEV INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              323 CAGAGAGCTGTGGAGCAACTT 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 cadadcadcrideddaddadrir 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Adkins K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP
                                                                                                                29-SEP-2000; 2000CN-00125577
                                                                                                                                                   29-SEP-2000; 2000CN-00125577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-AUG-2002; 2002WO-US026514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-AUG-2001; 2001US-0313080P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABZ84243/c
ID ABZ84243 standard; DNA; 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-MAY-2003 (first entry)
                                                                                                                                                                                                                                                                WPI; 2002-539340/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-268322/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dunn RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003016500-A2
                                                                                                                                                                                                                            Mao Y, Xie Y;
 Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                       CN1345941-A.
                                                                          24-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABZ84243;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Neft RE,
Alen P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel oligonucleotide for identification of genetic factors of diseases of circulatory organs. The oligonucleotide of the invention is useful for the genetic identification of diseases of circulatory organs. The present sequence is used in the exemplification
                                                                                                                                                                                                                                                                                                                                                             human, circulatory disease; ss; natriuretic peptide A receptor; receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA topoisomerase II 21.34; TOP2; primer; ss; DNA recombination; cancer; malignant tumour; haemopathy; human immunodeficiency virus; HIV; RT-PCR; immunological disease; inflammation; development disturbance; reverse transcriptase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           An oligonuclectide for identification of genetic factors of diseases of circulatory organs.
                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                       Human natriuretic peptide A receptor PCR primer 1 SEQ ID NO:2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2.1%; Score 17.6; DB 1; Length 25; 83.3%; Pred. No. 88; 4; Indels ative 0; Mismatches 4; Indels
Score 17.6; DB 1; Length 25;
Pred. No. 88;
0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA topoisomerase II (TOP2) 21.34 cDNA RT-PCR primer #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 25 BP; 8 A; 7 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 1; SEQ ID NO 2; 6pp; Japanese.
                                                                              878 CATTGAGGTCCTGCATGTGAGAAC 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  803 CTGACTGAACCCTGGTACTGTGGG 826
                                                                                                                  caaggaggreerggaagreagage 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    creacrarreceragracreres
                                                                                                                                                                                                             BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-2001; 2001JP-00167331.
     Query Match
Best Local Similarity 83.3%;
Matches 20; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-2001; 2001JP-00167331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABS55943 standard; DNA; 24
                                                                                                                                                                                                           ADC51443 standard; DNA; 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
' - Thes 20; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-472590/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NOGGIN AIND (-INAD)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                       JP2002355049-A.
                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                    PCR; primer.
                                                                                                                                                                                                                                                                                        18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-DEC-2002
                                                                                                                                                                                                                                                  ADC51443;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABS55943;
                                                                                                                                                                                               ADC51443/c
```

ö

Gaps

. 0

Schmeiser K;

RESULT 8 ABS55943

ð g Fri

drugs, comprises comparing the expression profile of one or more human toxic response genes to a reference gene expression profile indicative of Claim 1; Page 337; 455pp; English toxicity

The present invention describes a method (MI) for determining a toxicological response to an agent, which comprises comparing the expression profile of one or more human toxic response genes to a reference gene expression profile of one or more human toxic response to a determining the presence of a toxic response to the agent. Also catermining the presence of a toxic response to the agent. Also comprising one or more polymolectides selected from the genes corresponding to the partial sequences given in ABZ82842 corresponding to the partial sequences given in ABZ82842 corresponse gene plays a role on toxic response pathways by determining the expression profile of the gene after exposure of cells or a human subject to a known toxic pharmaceutical or industrial agent, comprising: (a) exposing cells to an agent or isolating cells from a human subject who can exposed to an agent or isolating cells from a human subject who can putatively identified toxic response gene after exposure to a known toxic pharmaceutical or industrial agent, and (c) comparing the test profile to the expression profile of a gene with a similar function or comparing the test profile to the expression profile of a gene with a similar function or comparing the test profile to the expression profile of a gene with a similar function or profile in the arrays computing the human genes are useful for toxic predicting and determining the human genes are useful for toxic toxicological screening of drugs, pharmaceutical compounds and chemicals

Sequence 25 BP; 6 A; 7 C; 6 G; 6 T; 0 U; 0 Other;

; Query Match 2.0%; Score 17; DB 1; Length 25; Best Local Similarity 80.0%; Pred. No. 1.2e+02; Matches 20; Conservative 0; Mismatches 5; Indels 174 GCTGACAGTCACAGTGGCCGGGTCA 198 GCAGACAGTCACACTGGTTTGGTCA 1 25 쉱 8

ACI81954 standard; DNA; 25 ACI81954;

BP

14-OCT-2003 (first entry)

Human microarray DNA oligonucleotide SEQ ID NO 81945.

expressed sequence tag; microarray; gene expression; on; biallelic marker; polymorphism; human; cross-species comparison EST; ss; probe; exp genetic variation;

Homo sapiens

US2003104410-A1.

05-JUN-2003.

15-MAR-2002; 2002US-00098263

16-MAR-2001; 2001US-0276759P.

(AFFY-) AFFYMETRIX INC

Mittmann MP;

WPI; 2003-567953/53.

New array of nucleic acid probes, useful for in situ hybridization, in Southern, Northern or dot-blot hybridization to identify or detect the sequence or specific mutations of any gene.

Claim 1; SEQ ID NO 81945; 9pp; English.

The invention discloses a microarray comprising a plurality of nucleic acid probes including one of 2,018,500 fully defined sequences, or its perfect match, perfect mismatch, antisense match or antisense mismatch. Also disclosed is a method of gene expression analysis. The array is used in manitoring gene expression levels by hybridisation to a DNA library, compounds. The nucleic acid probes are specifically designed for analysis compounds. The nucleic acid probes are specifically designed for manlysis of at least one target sequence. The method of analysis comprises of the pridising at least one or more nucleic acid probes and detecting the hybridisation. The nucleic acid probes and detecting the hybridisation. The nucleic acid probes are attached to a solid support. The analysis comprises monitoring gene expression levels, identifying biallelic markers or polymorphisms, or family members of a gene and a cross-species comparison. Each of the nucleic acids further comprises a tag sequence. The array of nucleic acid probes is useful in in situ hybridisation, in Southern, Northern or docton the hybridisation to identify or detect the sequence or specific acid contact additional subclones containing segments of DNA that have been contained and previously sequenced. The sequence presented is one of the nucleic acid probes incorporated in the microarray. Note: The sequence contains of ata for this patent can also be obtained in electronic format directly the form of the contains of acid in acid probes incorporated in the microarray. Note: The sequence to the sequence of the acid for this patent can also be obtained in one centure.

Sequence 25 BP; 5 A; 7 C; 8 G; 5 T; 0 U; 0 Other;

Gaps . 2.0%; Score 17; DB 1; Length 25; 80.0%; Pred. No. 1.2e+02; ive 0; Mismatches 5; Indels 20; Conservative Local Similarity Query Match Best Loca Matches

ö

à 셤

Gaps

AAA64547/

AAA64547 standard; DNA; 23 AAA64547; HALL SEE THE S

BP

(first entry) 02-JAN-2001

Nucleotide sequence of a donor site of human FEZ1 gene.

Human, FEZ1 gene, tumour suppressor gene, 8p22; cancer, tumour growth, tumour proliferation, tubulin, microtubule, protein EF1-gamma; tubulin polymerisation disorder; mitosis initiation; cell proliferation; cell growth; cell shape; cell rigidity; cell motility; DNA replication; tumorigenesis; tumour survival; metastasis; ss.

Homo sapiens.

WO200050565-A2.

31-AUG-2000.

25-FEB-2000; 2000WO-US004950.

99US-0121537P. 25-FEB-1999; (UYJE-) UNIV JEFFERSON THOMAS Croce CM, Ishii H;

WPI; 2000-558396/51.

New polynucleotide homologous with a portion of one strand of the human FEZ1 gene, useful for alleviating abnormal cell proliferation such as

```
FEZI is a tumour suppressor gene, located at chromosome location 8p22.

Decreased or no expression of FEZI is detected in a variety of cancer cells. Expression of FEZI is detected in a variety of cancer cells. Expression of FEZI is detected in a variety of cancer cells. Expression of FEZI is detected in a variety of cancer cells. Expression and with protein FEZI cells. Expression and dephosphorylation modulates the effect of the FEZI protein. Inhibitors of FEZI gene expression are useful for inducing cells to proliferate. Compounds which modulate FEZI association with tubulin are useful for alleviating tubulin hyper- or hypo-polymerisation disorders, such as those associated with aberrant confideration and cell growth, modulation of cell shape, cell rigidity, cell motility, rate and stage of cellular DNA replication, intracellular distribution of organelles, metastatic potential of cell and cellular cansformation from a non-cancerous to cancerous phenotype. Compounds which modulate FEZI binding and phosphorylation are also useful for alleviating a disorder, such as tumorigenesis, tumour survival, growth
                                             represent donor and acceptor sites of the human FEZ1 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Collagen; human; recombinant; post-translational enzyme; procollagen; prolyl 4-hydroxylase alpha subunit; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                              ٥;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human prolyl 4-hydroxylase alpha subunit amplifying 3' primer.
                                                                                                                                                                                                                                                                                                                                                                                           2.0%; Score 16.8; DB 1; Length 23; 90.0%; Pred. No. 1.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                             Sequence 23 BP; 6 A; 4 C; 10 G; 3 T; 0 U; 0 Other;
                 Example 1; Page 103; 255pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTGCTCCAGCAGCTCTCC 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ccrecrecaecaecricaec 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kivirikki KI, Pihlajaniemi T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97WO-US007300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96US-00631336
                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 90.09
Matches 18, Conservative
                                                                                                                                                                                                                                                                                                                                 and metastasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 12
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

This primer is used to mutate a plasmid pBS(SK-) by PCR by introducing a NotI site upstream of the initiation codon for human prolyl 4-hydroxylase alpha subunit. This is used in the construction of recombinant vectors

Example 10; Page 57; 90pp; English.

Recombinant production of (pro)collagen having correct folding - using vectors encoding collagen sub:unit and collagen post-translational enzyme

.; 0

Gaps

```
ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       In a novel method, differentially expressed cDNA clones are identified by comparing cDNA obtained from abnormal breast tissue (e.g. ductal cardinoma in situ (DCIS)) samples with those obtained from normal breast epithelial cells. Such clones are useful as marker genes for pre-invasive human breast tissue. In a prefd, version of the method, differential expression of the marker gene is confirmed by using PCR amplification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Detection, diagnosis and treatment of pre-invasive breast cancer - by identifying differentially expressed marker genes, also use of BRCAl gene in therapy of breast cancer.
                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Robinson-Benion CL;
                                                                                                                                                                                                                                                                                                                                                                                                                                        BRCA1; breast cancer; diagnosis; prognosis; gene therapy; non-comedo DCIS; ductal carcinoma; pre-invasive human breast tissue; marker gene; RT-PCR; primer;
                                                                                                                                                                                                                                               ·,
                                                                                                                                                                                                                     2.0%; Score 16.8; DB 1; Length 24; 90.0%; Pred. No. 1.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                    Pre-invasive human breast cancer marker gene PCR primer.
                                                                                                                                                                                                  Sequence 24 BP; 7 A; 6 C; 4 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Obermiller PS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 13; Page 106; 149pp; English.
                                                                                                                                                                                                                                                                      748 IGGICCTIAAGGAGATGGCA 767
                                                                                                                                                                                                                                                                                            20 récréctiaageararerea 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95WO-US000608.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94US-00182961.
95US-00373799.
                                                                                                                                                                                                                                                                                                                                                   AAQ93015 standard; DNA; 25
                                                                                                                                                                                                                                                                                                                                                                                               02-APR-1996 (first entry)
                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYVA-) UNIV VANDERBILT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              randomly selected; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jensen RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1995-269208/35.
                                                                                                                                                                                                                                   Best Local Similarity
Matches 18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .7-JAN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-JAN-1994;
17-JAN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9519369-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-JUL-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thompson ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                         AAQ93015;
                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Holt JT,
                                                                                                                                                                                                                                                                                                                              RESULT 13
                                                                                                                                                                                                                                                                                                                                          AAQ93015
      888888888888888888888888
                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                            셤
```

The present sequence is that of a randomly selected PCR primer for use in the amplification

Sequence 25 BP; 1 A; 10 C; 7 G; 7 T; 0 U; 0 Other;

88333

schu568-1.rng

Gaps ·; 2.0%; Score 16.8; DB 1; Length 25; 90.0%; Pred. No. 1.3e+02; Live 0; Mismatches 2; Indels Sequence 25 BP; 9 A; 6 C; 7 G; 3 T; 0 U; 0 Other; Query Match
Best Local Similarity 90.0
Matches 18; Conservative X S ò

0

882 GAGGICCIGCAIGIGAGAAC 901

ö

Gaps .. 0

Score 16.8; DB 1; Length 25; Pred. No. 1.3e+02; 0; Mismatches 2; Indels

Query Match
Best Local Similarity 90.0%;
Matches 18; Conservative (

Trecrederreceaseere 220 3 TTCCTGGGTTACCTGCCCTC 22

201

8 a ACI98047 standard; DNA; 25 BP

4 GAGGTCCTCCAAGTGAAC 23

셤

ABN13283/

283/c ABN13283 standard; DNA; 25 BP.

ABN13283;

(first entry) 29-MAY-2002

Human, genome-derived myosin-like protein 1, GDMLP-1; hGDMLP-1; heart, muscle, myosin, chromosome 22, gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss. Human GDMLP-1 25-mer scanning SEQ ID NO:5 sequence SEQ ID NO:13275.

Homo sapiens.

EST; ss; probe; expressed sequence tag; microarray; gene expression; genetic variation; biallelic marker; polymorphism; human; cross-species comparison.

Human microarray DNA oligonucleotide SEQ ID NO 98038.

14-OCT-2003 (first entry)

ACI98047;

WO200192524-A2.

06-DEC-2001.

25-MAY-2001; 2001WO-US016981

26-MAY-2000; 2000US-0207456P.
21-SEP-2000; 2000US-0234687P.
27-SEP-2000; 2000US-0234587P.
04-OZT-2000; 2000US-0236359P.
04-OZHN-2001; 2001WO-US000661.
30-JAN-2001; 2001WO-US000663.
30-JAN-2001; 2001WO-US000666.
30-JAN-2001; 2001WO-US000666.
30-JAN-2001; 2001WO-US000666.
30-JAN-2001; 2001WO-US000666.
30-JAN-2001; 2001WO-US000667.
30-JAN-2001; 2001WO-US000669.
30-JAN-2001; 2001WO-US000669.

New array of nucleic acid probes, useful for in situ hybridization, in Southern, Northern or dot-blot hybridization to identify or detect the sequence or specific mutations of any gene.

16-MAR-2001; 2001US-0276759P.

(AFFY-) AFFYMETRIX INC

WPI; 2003-567953/53.

Mittmann MP;

15-MAR-2002; 2002US-00098263

US2003104410-A1. Homo sapiens.

05-JUN-2003.

Claim 1; SEQ ID NO 98038; 9pp; English.

(AEOM-) AEOMICA INC.

Shannon ME; Chen W, Rank DR, Hanzel DK, Gu Y, Ji Y, Penn SG, New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1.

Disclosure; SEQ ID NO 13275; 214pp; English.

The invention discloses a microarray comprising a plurality of nucleic acid probes including one of 2,018,500 fully defined sequences, or its perfect match, perfect mismatch, antisense mach or antisense mismatch. Also disclosed is a method of gene expression analysis. The array is used in monitoring gene expression levels by hybridisation to a DNA library, and analysis of genetic variation or in hybridisation to a DNA library. In analysis of genetic variation or in hybridisation of tag-labelled compounds. The nucleic acid probes are specifically designed for analysis of a least one target sequence. The method of analysis comprises the probes and detecting the hybridisation. The nucleic acid probes and detecting the hybridisation. The nucleic acid probes are attached to a sollid support. The analysis comprises monitoring probes are attached to a sollid support. The analysis comprises or family members of a gene and a cross-species comparison. Each of the probes is useful in in situ hybridisation, in Southern, Northern or dottored to a sollid supping the 5' termin of mRNA molecules by primer extensions or in screening cDNA or genomic libraries or subclones for additional subclones containing segments of ENA that have been conclet acid probes incorporated in the microarray. Note: The sequence of the nucleic acid for this patent can also be obtained in electronic format directly from USPTO at sequence. Huml

The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-1 can be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids can be used as probes to detect, characterise and quantify hGDMLP-1 nucleic acids in samples, as amplification substrates, to provide initial substrates for the recombinant empineering of hGDMLP-1 protein variants having desired phenotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be expressing to reasons to raise antibodies that specifically recognise hGDMLP-1 proteins, as standards in assays used to determine the concentration and/or amount specifically of hGDMLP proteins, as specific blomolecule

WPI; 2002-179446/23.

大学 一大学 一大学

schu568-1.rng

```
(AEOM-) AEOMICA INC.
                                                                                                                                                                                                                                                                                                                                                                       ABN13284/c
                                                                                                                                                                                                                                                                                                                                                            RESULT 17
  %XGGGGGGGGGGGGGGGGGGGGG
                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                         therapeutic supplement in patients having specific deficiency in hGDMLP-1 production, and in vaccines or for replacement therapy. The polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a disorder associated with the expression of hGDMLP-1, in particular heart and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22. The present sequence represents an oligomer used in the screening of the hGDMLP-1 sequence in the exemplification of the present invention. N.B. The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at fite.wipo.int/pub/published_pot_sequence
                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser descrption ionization, comprises human myosin-like protein hGDMLP-1.
                                                                                                                                                                                                                                                                                                                                                Human, genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart; muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss.
                                                                                                                                                                     0; Gaps
                                                                                                                                                                                                                                                                                                                              Human GDMLP-1 25-mer scanning SEQ ID NO:5 sequence SEQ ID NO:13277.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shannon ME;
                                                                                                                                               2.0%; Score 16.6; DB 1; Length 25; 82.6%; Pred. No. 1.5e+02;
                                                                                                                                                                     4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chen W,
                                                                                                                           Sequence 25 BP; 6 A; 6 C; 10 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rank DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; SEQ ID NO 13277; 214pp; English
                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                        401 CACCCTGCTCCAGCAGGCTCTCC 423
                                                                                                                                                                                                              cacrcrecrecrescrescresc 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hanzel DK,
                                                                                                                                                                                                                                                                 ABN13285 standard; DNA; 25 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US000668.
2001WO-US000669.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001WO-US000664.
2001WO-US000665.
2001WO-US000666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0234687P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001WO-US000661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001WO-US000670
2001US-0266860P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000GB-00024263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US000663
                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-MAY-2001; 2001WO-US016981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001WO-US000667
                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                               Query Match
Best Local Similarity 82.6
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gu Y, Ji Y, Penn SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-179446/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (AEOM-) AEOMICA INC.
                                                                                                                                                                                                                                                                                                                                                                                                                  WO200192524-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-SEP-2000;
27-SEP-2000;
04-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-JAN-2001;
30-JAN-2001;
30-JAN-2001;
30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-JAN-2001;
                                                                                                                                                                                                                                                                                                          29-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                      06-DEC-2001
                                                                                                                                                                                                              25
                                                                                                                                                                                                                                                                                      ABN13285;
                                                                                                                                                                                                                                            g
    88888888888888888
                                                                                                                                                                                            à
```

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart; muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human GDMLP-1 25-mer scanning SEQ ID NO:5 sequence SEQ ID NO:13276.
                                                                                                                                                                                                                                                                                                                                                                                                                                  .
                                                                                                                                                                                                                                                                                                                                                                                               Query Match 2.0%; Score 16.6; DB 1; Length 25; Best Local Similarity 82.6%; Pred. No. 1.5e+02; Matches 19; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                   Sequence 25 BP; 8 A; 6 C; 9 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23 cacrerecrecaecreecrerec 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                              401 CACCCTGCTCCAGCAGGCTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-JAN-2001, 2001W0-US000662.
30-JAN-2001, 2001W0-US000663.
30-JAN-2001, 2001W0-US000664.
30-JAN-2001, 2001W0-US000666.
30-JAN-2001, 2001W0-US000666.
30-JAN-2001, 2001W0-US000666.
30-JAN-2001, 2001W0-US000669.
30-JAN-2001, 2001W0-US000669.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABN13284 standard; DNA; 25 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000GB-00024263.
2001WO-US000661.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-MAY-2001; 2001WO-US016981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-0236359P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-MAY-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200192524-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30 JAN 2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-SEP-2000;
04-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABN13284;
```

schu568-1.rng

Determining a toxicological response to an agent, useful for screening of drugs, comprises comparing the expression profile of one or more human toxic response genes to a reference gene expression profile indicative of toxicity.

Claim 1; Page 331; 455pp; English.

The present invention describes a method (M1) for determining a toxicological response to an agent, which comprises comparing the expression profile of one or more human toxic response genes to a reference gene expression profile indicative of toxicity, and so reference gene expression profile indicative of toxicity, and so described: (1) an array comprising one or more polymodeotides selected from the genes corresponding to the partial sequences given in AB282842 to make gene corresponding to the partial sequences given in AB282842 to AB284764, or their fragments of at least 20 mucleotides, or homologues or and (2) determining if a gene putatively identified to be a toxic response gene plays a role on toxic response pathways by determining the expression profile of the gene after exposure of cells or a human subject to a known toxic pharmaceutical or industrial agent, comprising: (a) exposing cells to an agent, (b) obtaining the test gene expression profile for a putatively identified toxic response gene after exposure to a known comparing the test profile to the expression profile of a gene with a similar function or comparing the test profile to the expression profile of a gene with a similar function or comparing the test profile to the expression profile of a gene with a similar function or comparing the test profile to the expression profile of a gene with a similar function or comparing the test profile to the expression profile of a gene with a similar function or comparing the test profile to the expression profile of a gene with a similar, organ or predicting and determining toxicological responses on a cellular, organ or system level. The arrays comprising the human genes are useful for toxic longual screening of drugs, pharmaceutical compounds and chemicals

Sequence 25 BP; 5 A; 10 C; 4 G; 6 T; 0 U; 0 Other;

0 Query Match 2:0%; Score 16.6; DB 1; Length 25; Best Local Similarity 82.6%; Pred. No. 1.5e+02; Matches 19; Conservative 0; Mismatches 4; Indels

o,

297 GTCGGGGCCCTGCATGGGAAGA 319 25 GIGGIAGCCCIGGAIGGGAAAGA 3 ð

ö

Gaps

.,

RESULT 19

ABX77364 standard; DNA; 25 BP. ABX77364;

09-APR-2003 (first entry)

Mouse 1rba 3' RACE primer.

LPS responsive CHS1/beige-like anchor gene; lrba; primer; PCR; tumour growth inhibitor; cytostatic; gene therapy; tumour; cancer; melanoma; chronic myelogenous leukaemia; adenocarcinoma; lymphoblastic leukaemia; lung carcinoma; ss; human; mouse.

WO200278614-A2.

10-OCT-2002.

02-APR-2002; 2002WO-US010350

02-APR-2001; 2001US-0280107P.

(UYSF-) UNIV SOUTH FLORIDA.

Kerr WG, Wang J;

WPI; 2003-103233/09

A service of the serv

WPI; 2003-268322/26. The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polymucleotide sequences of hGDMLP-1 can be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids can be used as probes to detect, characterise and quantify hGDMLP-1 nucleic acids in samples, as amplification substrates, to hGDMLP-1 nucleic acids in samples, as amplification substrates, to provide initial substrates for the recombinant engineering of hGDMLP-1 protein variants having desired phenotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunogens to raise antibodies that specifically recognise hGDMLP-1 candor amount specifically proteins, as standards in assays used to determine the concentration and/or amount specifically proteins, as specific biomolecule capture probes for surface-enhanced laser describin ionisation, as therapeutic supplement in patients having specific deficiency in hGDMLP-1 production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The concentration and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.

The present sequence represents an oligomer used in the screening of the hGDMLP-1 sequence data for this patent did not form part of the printed sequence data for this patent did not form part of the printed sequence for this patent did not form part of the printed sequence for this patent did not form part of the printed sequence in the sequence contact of the printed sequence for the present sequence and patent sequence are the present sequence are the present directly from WIPO can fire the present sequence and the sequence of the printed sequence and the sequence of the printed sequence and the present sequence and patent sequence and sequence and patent sequence and sequence and sequence and New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1. Shannon ME; Chen W, Sequence 25 BP; 7 A; 6 C; 9 G; 3 T; 0 U; 0 Other; Rank DR, Disclosure; SEQ ID NO 13276; 214pp; English. Hanzel DK, Gu Y, Ji Y, Penn SG, WPI; 2002-179446/23.

Query Match 2.0%; Score 16.6; DB 1; Length 25; Best Local Similarity 82.6%; Pred. No. 1.5e+02; Matches 19; Conservative 0; Mismatches 4; Indels 401 CACCCTGCTCCAGCAGCTCTCC 423

24 CACTCTGCTCCAGCTGGCTGTGC 2 g

ABZ84104 standard; DNA; 25 BP ABZ84104;

14-MAY-2003 (first entry)

Toxicologically relevant human PCR primer #1263.

Toxicologically relevant gene; toxicological response; PCR primer; ss.

Homo sapiens.

WO2003016500-A2. Synthetic

16-AUG-2002; 2002WO-US026514 27-FEB-2003.

16-AUG-2001; 2001US-0313080P.

(PHAS-) PHASE-1 MOLECULAR TOXICOLOGY INC.

Schmeiser Kier LD, Neft RE, Dunn RT, Adkins K, Pickett GG, Alen P;

```
This invention relates to a novel isolated LPS-responsive and Beige- like Anchor (Irba) polypeptide which may be used to inhibit tumour growth. The invention also comprises an interfering RNA sequence which may be used to suppress lrba function and inhibit tumour growth. The polypeptide and small interfering RNA (siRNA) molecules of the invention may have cytostatic activity and may be used in gene therapy. Also disclosed is a method for inhibiting tumour growth in a patient comprising administering to the patient an agent that suppresses Irba function in the patient. The agent may be a polynucleotide fragment of an Irba gene or its variant, or a polympeptide fragment of an Irba gene or its variant, or a polympetide fragment of an Irba gene. The method of the invention may be used to treat a patient who is suffering from a tumour or a cancer, such as breast, prostate, melanoma, cervical or colorectal cancer, chronic myelogenous leukemia, adenocarcinoma, lymphoblastic leukemia or lung carcinoma. The present sequence represents a PCR primer used to amplify a lrba gene sequence of the invention
               isolated LPS-responsive and Beige-like Anchor polypeptide useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LPS responsive CHS1/beige-like anchor gene; lrba; primer; PCR; tumour growth inhibitor; cytostatic; gene therapy; tumour; cann melanoma; chronic myelogenous leukaemia; adenocarcinoma; lymphoblastic leukaemia; lung carcinoma; ss; human; mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.0%; Score 16.6; DB 1; Length 25; llarity 82.6%; Pred. No. 1.5e+02; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 25 BP; 10 A; 1 C; 10 G; 4 T; 0 U; 0 Other;
                                  for inhibiting growth of tumors in a patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              767 AGAACTGGAGAGAGAGTGTGAGC 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAAGAGAGAAGATGTGTGATC 25
                                                                       Disclosure; Page 33; 79pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mouse 1rba gene PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-APR-2001; 2001US-0280107P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-APR-2002; 2002WO-US010350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABX77358 standard; DNA; 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UYSF-) UNIV SOUTH FLORIDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wang J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200278614-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABX77358;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kerr WG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (us
8
```

This invention relates to a novel isolated LPS-responsive and Beige- like Anchor (Irba) polypeptide which may be used to inhibit tumour growth. The invention also comprises an interfering RNA sequence which may be used to

A new isolated LPS-responsive and Beige-like Anchor polypeptide useful for inhibiting growth of tumors in a patient.

WPI; 2003-103233/09.

Disclosure, Page 33; 79pp; English

ö

```
suppress lrba function and inhibit tumour growth. The polypeptide and small interfering RNA (siRNA) molecules of the invention may have cytostatic activity and may be used in gene therapy. Also disclosed is a method for inhibiting tumour growth in a patient comprising administering to the patient agent that suppresses Irba function in the patient. The agent may be a polymucleotide fragment of an Irba gene or its variant, or a polypeptide fragment of an irba gene or ins variant, or that interferes with the expression of the Irba gene. The method of the invention may be used to treat a patient who is suffering from a tumour or a cancer, such as breast, prostate, melanoma, cervical or colorectal cancer, chronic myelogenous leukemia, adenocarcinoma. Iymphoblastic leukemia or lung carcinoma. He present sequence represents a PCR primer used to amplify a lrba gene sequence of the invention
                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention discloses a microarray comprising a plurality of nucleic acid probes including one of 2,018,500 fully defined sequences, or its perfect mismatch, antisense match or antisense mismatch. Also disclosed is a method of gene expression analysis. The array is used in monitoring gene expression levels by hybridisation to a DNA library, compounds. The nucleic acid probes are specifically designed for analysis of at least one target sequence. The method of analysis comprises hybridising at least one or more nucleic acids to at least two or more nucleic acids to at least two or more nucleic acids to at least two or more probes are attached to a solid support. The analysis comprises probes are attached to a solid support. The analysis comprises monitoring gene expression levels, identifying biallelic markers or polymorphisms,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in situ hybridization, in
to identify or detect the
                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          expressed sequence tag; microarray; gene expression; on; biallelic marker; polymorphism; human;
                                                                                                                                                                                                                                                                                                                                                                                             .,
                                                                                                                                                                                                                                                                                                                                             2.0%; Score 16.6; DB 1; Length 25; 82.6%; Pred. No. 1.5e+02; tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human microarray DNA oligonucleotide SEQ ID NO 74116.
                                                                                                                                                                                                                                                                                                         Sequence 25 BP; 10 A; 1 C; 10 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New array of nucleic acid probes, useful for Southern, Northern or dot-blot hybridization sequence or specific mutations of any gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; SEQ ID NO 74116; 9pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                        767 AGAACTGGAGAAGAAGTGTGAGC 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAAGAGAAAAATGTGTGATC 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-MAR-2002; 2002US-00098263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-MAR-2001; 2001US-0276759P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACI74125 standard; DNA; 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 82.6
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cross-species comparison.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AFFY-) AFFYMETRIX INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-567953/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST; ss; probe; exp
genetic variation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US2003104410-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mittmann MP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUN-2003,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACI74125;
           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

or family members of a gene and a cross-species comparison. Each of the nucleic acids further comprises a tag sequence. The array of nucleic acid probes is useful in in situ hybridisation, in Southern, Northern or dotblot hybridisation to identify or detect the sequence or specific mutations of any gene, in mapping the 5' termini of mRNA molecules by primer extensions or in screening CDNA or genonic libraries or subclones for additional subclones containing segments of DNA that have been isolated and previously sequenced. The sequence presented is one of the mucleic acid probes incorporated in the microarray. Note: The sequence data for this patent can also be obtained in electronic format directly from USPTO at sequence.html FIT OUT SO TO:SE:US COOR

STIT-T-COCNITOR

Sequence 25 BP; 8 A; 4 C; 10 G; 3 T; 0 U; 0 Other;

2.0%; Score 16.6; DB 1; Length 25; 82.6%; Pred. No. 1.5e+02; ive 0; Mismatches 4; Indels 251 GAAGGACTTAGACAGGAGCACCT 273 19; Conservative Local Similarity Query Match Matches ે

GAAGGACTGAGAGAGGAGGACTT 25

ACK10883 standard; DNA; 25

ACK10883;

BP

Human microarray DNA oligonucleotide SEQ ID NO 110864.

(first entry)

14-OCT-2003

EST; ss; probe; expressed sequence tag; microarray; gene expression; genetic variation; biallelic marker; polymorphism; human; cross-species comparison.

Homo sapiens

US2003104410-A1.

05-JUN-2003.

15-MAR-2002; 2002US-00098263.

16-MAR-2001; 2001US-0276759P.

(AFFY-) AFFYMETRIX INC

Mittmann MP;

WPI; 2003-567953/53.

New array of nucleic acid probes, useful for in situ hybridization, in Southern, Northern or dot-blot hybridization to identify or detect the sequence or specific mutations of any gene.

Claim 1; SEQ ID NO 110864; 9pp; English.

The invention discloses a microarray comprising a plurality of nucleic acid probes including one of 2,018,500 fully defined sequences, or its perfect match, perfect mismatch, antisses match or antisense mismatch. Also disclosed is a method of gene expression analysis. The array is used in monitoring gene expression levels by hybridisation to a DNA library, in analysis of genetic variation or in hybridisation of tag-labelled compounds. The nucleic acid probes are specifically designed for analysis of at least one target sequence. The method of analysis comprises hybridisation at least one or more nucleic acids to at least two or more nucleic acid probes are attached to a solid support. The analysis comprises monitoring gene expression levels, identifying biallelic markers or polymorphisms, or family members of a gene and a cross-species comparison. Each of the nucleic acids further comprises a tag sequence. The array of nucleic acid ACKLO883
ACK

probes is useful in in situ hybridisation, in Southern, Northern or dotblot hybridisation to identify or detect the sequence or specific mutations of any gene, in mapping the 5' termini of mRNA molecules by primer extensions or in screening CDNA or genomic libraries or subclones for additional subclones containing segments of DNA that have been isolated and previously sequenced. The sequence presented is one of the nucleic acid probes incorporated in the microarray. Note: The sequence data for this patent can also be obtained in electronic format directly from USPTO at sequence.html

8888888888888

Sequence 25 BP; 9 A; 5 C; 7 G; 4 T; 0 U; 0 Other;

Gaps ö 2.0%; Score 16.6; DB 1; Length 25; 82.6%; Pred. No. 1.5e+02; ative 0; Mismatches 4; Indels Query Match
Best Local Similarity 82.6
Matches 19; Conservative

ö

8 임

Gaps

. 0

RESULT 23 ACK12063/c ID ACK12063 standard; DNA; 25

BP.

ACK12063;

(first entry) 14-OCT-2003

Homo sapiens.

(AFFY-) AFFYMETRIX INC.

Mittmann MP;

New array of nucleic acid probes, useful for in situ hybridization, in Southern, Northern or dot-blot hybridization to identify or detect the sequence or specific mutations of any gene.

The invention discloses a microarray comprising a plurality of nucleic acid probes including one of 2,018,500 fully defined sequences, or its perfect match, perfect mismatch, antisense match or antisense mismatch. Also disclosed is a method of gene expression analysis. The array is used in monitoring gene expression levels by hybridisation to a DNA library, an analysis of genetic variation or in hybridisation of tag-labelled compounds. The nucleic acid probes are specifically designed for analysis of t least one target sequence. The method of analysis comprises hybridising at least one or more nucleic acids to at least two or more nucleic acids to at least two or more nucleic acids to at least two sexpression levels, identifying biallelic markers or polymorphisms, or family members of a gene and a cross-species comparison. Each of the nucleic acids further comprises a tag sequence. The array of nucleic acid the probes is useful in in stu hybridisation, in Southern, Northern or detection to identify or detect the sequence or specific

The second secon

Human microarray DNA oligonucleotide SEQ ID NO 112044.

BST; ss; probe; expressed sequence tag; microarray; gene expression; genetic variation; biallelic marker; polymorphism; human; cross-species comparison.

US2003104410-A1.

05-JUN-2003.

15-MAR-2002; 2002US-00098263.

16-MAR-2001; 2001US-0276759P.

WPI; 2003-567953/53.

Claim 1; SEQ ID NO 112044; 9pp; English

ر ماجو

```
mutations of any gene, in mapping the 5' termini of mRNA molecules by primer extensions or in screening CDNA or genomical libraries or subclones for additional subclones containing segments of DNA that have been isolated and previously sequenced. The sequence presented is one of the nucleic acid probes incorporated in the microarray. Note: The sequence data for this patent can also be obtained in electronic format directly from USPTO at seqdata.uspto.goc/sequence.html
```

88888888

Sequence 25 BP; 6 A; 8 C; 8 G; 3 T; 0 U; 0 Other;

```
Gaps
                               ö
2.0%; Score 16.6; DB 1; Length 25; 82.6%; Pred. No. 1.5e+02;
                             4; Indels
                               0; Mismatches
                                                         284 GITGAAACIIGIAGICGGGCCC 306
                             Conservative
              Local Similarity
hes 19; Conserv
 Query Match
                               Matches
                                                             ð
```

griccgacrigiagicggadc 3 25

ВЪ

Human abl intron 1b primer 3-1. ADD26409 standard; DNA; 22 (first entry) 15-JAN-2004 ADD26409; RESULT 24 ADD26409
XX
ADD2 ADD2
XX
DT 15-U
XX
DX HOMD
XX
CODJ
XX

conjugate; bcr; abl; fusion gene; transport mediator; cell membrane; PNA; Philadelphia chromosome; triple helix; cytostatic; chronic myeloid leukaemia; chromosome 22; ss; primer.

Homo sapiens

402003039438-A2

15-MAY-2003

08-NOV-2002; 2002WO-DE004154

08-NOV-2001; 2001DE-01054827

(DEKR-) DEUT KREBSFORSCHUNGSZENTRUM.

Braun I, Pipkorn R, Waldeck W, WPI; 2003-441456/41 Braun K,

Debus J;

New peptide nucleic acid conjugate, useful for treating chronic myeloid leukemia, targets the Philadelphia chromosome and includes transport peptides.

Example 2; Fig 4B; 30pp; German.

This invention describes a novel conjugate for specifically inhibiting expression of a bcr/abl fusion gene comprising a transport mediator for the cell membrane, a protein or peptide for importation into the cell nucleus, and a peptide nucleic acid (PNA) that hybridizes specifically to the bcr/abl fusion gene, inhibiting its expression. The transport mediator is a protein or peptide that can overcome the plasma membrane, especially the transmembrane peptide phatp (43-58) or peptides designated TPUBCO, TPUHLV-1/TAT and TPUHLM. The conjugate may include a spacer, especially between protein and PNA, and it has the structure transport mediator-disulfide-protein-spacer-PNA. Spacers are preferably polylysine, polyethylene glycol, derivatives of polymethactylic acid and polyvinyl pyrrolidone. The conjugate of the invention binds to the fusion region of the boryabl genes in the Philadelphia chromosome, forming a triple helix and thus inhibiting expression of the corresponding fusion protein (a tyrosine kinase). The products of the invention are cytostatic and are used thronic myeloid leukaemia. Treatment with the conjugate is non-invasive and combining the PNA with a transport mediator ensures efficient, rapid and directed transport of PNA to its target site

ò produces stable blockade of transcription of target genes. The conjugat can discriminate between the gene fusion and unfused bcr and abl genes and is effective at very low concentrations (below 100 pM), so side effects should not be significant. This sequence represents a primer capable of binding to a fragment of the human abl gene intron 1b (see Genbank U07563). Gaps (nucleus). The PNA is resistant to both protease and nuclease, so .. 1.9%; Score 16.2; DB 1; Length 22; 85.7%; Pred. No. 1.5e+02; Indels Sequence 22 BP; 5 A; 6 C; 6 G; 5 T; 0 U; 0 Other; 0; Mismatches Conservative Best Local Similarity Matches 18; Conserv Query Match 88888888888

ò

g

ö

ABS62544 standard; DNA; 24 RESULT 25 ABS62544 ID ABS

ABS62544;

(first entry) 05-NOV-2002

Analyte sorting tag sequence #1016.

Analyte sorting oligonucleotide tag; ss.

Synthetic.

WO200259355-A2.

01-AUG-2002.

25-JAN-2002; 2002WO-CA000089.

25-JAN-2001; 2001US-0263710P. 10-JUL-2001; 2001US-0303799P.

(TMBI-) TM BIOSCIENCE CORP.

Kobler D, Fieldhouse

WPI; 2002-619176/66.

Polynucleotides comprising minimally cross-hybridizing nucleotide sequences, useful as tags or tag complements for use in a wide variety cresearch, medical or industrial applications, e.g. in diagnostic assays or DNA sequencing

Example 2; Page 75; 120pp; English.

The invention relates to a composition, which comprises molecules for use as tags or tag complements. Each molecule comprises an oligonuclectide selected from a set of oligonuclectides based on numeric identifiers (numerals 1-3) corresponding to the pattern of nucleotide bases present in 1168 nucleotide sequences fully defined in the specification. These oligonucleotides were found to be non-cross Mybridising. The composition is useful as a tag or tag complement, in analysing a biological sample for the presence of a mutation or polymorphism at a locus in a nucleic acid, and in determining the presence of a target suspected of being contained in a mixture. Also for use in a wide variety of research, medical, or industrial applications, e.g. identification of disease.

The composition contained to polymucleotides, identification of specific polymucleotide in blots of mixtures of polymucleotides, therapeutic blocking of in blots of mixtures of polymucleotides, therapeutic blocking of in plots of mixtures of polymucleotides, therapeutic blocking of in plots of mixtures of polymucleotides, therapeutic blocking of inappropriately expressed genes or DNA sequencing. The polymucleotides in parallel processing of analytes. The use of the polymucleotides provides minimal cross-hybridisation or cross-talk during the sorting process.

Jul

Fri

schu568-1.rng

```
25
Page
```

```
Thus, any sequence within the family of sequences will not significantly cross-hybridise with any other sequence derived from that family, making it suitable for highly parallel processing of analytes. ABS61529-ABS62696 represent oligonucleotide tags of the invention
```

Sequence 24 BP; 12 A; 0 C; 6 G; 6 T; 0 U; 0 Other;

ö Gaps . 0 Query Match 1.9%; Score 16.2; DB 1; Length 24; Best Local Similarity 85.7%; Pred. No. 1.7e+02; Matches 18; Conservative 0; Mismatches 3; Indels 767 AGAACTGGAGAAGAAGTGTGA 787 AGAATTAGAGAATAAGTGTGA 22 N 셤 ò

ABI86484 standard; DNA; 24 BP

(first entry) 15-FEB-2002 Capture oligonucleotide Zip ID#2044 oligo #1.

Human; K-ras, PCR primer, probe; capture probe; mutation detection; ligase detection reaction; LDR; p53; BRCA1; BRCA2; infectious disease; infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer; oncogene; tumour suppressor; human papillomavirus; forenaic; environmental monitoring; food industry; feed industry; ss.

Synthetic.

WO200179548-A2.

25-OCT-2001.

04-APR-2001; 2001WO-US010958.

14-APR-2000; 2000US-0197271P.

(CORR) CORNELL RES FOUND INC

ĸ Kliman Favis R, Gerry NP, Zirvi M, Barany F,

WPI; 2002-034366/04.

Designing capture oligonucleotide probes for use on a support to which complementary oligonucleotides hybridize with little mismatch.

Example 5; Fig 25; 300pp; English.

The present invention describes a method (MI) for designing capture oligonucleotide probes (I) for use on a support to which complementary oligonucleotide probes (II) will hybridise with little mismatch, where (I) have melting temperatures within a narrow range. The method is useful (I) have melting temperatures within a narrow range. The method is useful (I) have melting temperatures within a narrow range. The method is useful (I) have melting infectious diseases caused by bacterial infectious agents of Salmonalla, Listeria monocytogenes and Haemophilus influenza, fungal infectious agents of C (I) have man gents e.g. Cryptococcus neoformans, Candida albicans and Aspergillus fumigautus, viruses e.g. T-cell lymphocytotrophis citus, Especial Barting and parasitic infectious agents of selected from Ondowerva volvulus, Entamoeba histolytica and Dracunculus medinesis. The method is also useful for detecting genetic diseases such as 1 hydroxylase deficiency, Turner Syndrome and obesity defects.

CC cancer is specifically associated with a gene selected from BRCA1 gene, p33 gene, human papillomavirus types 16 and 18 and liver cancers. The method is also used for environmental monitoring, forensics and the food and feed industry, detecting comprises scanning (using e.g. a scanning electron microscope and infrared microscope) the support at the particular sites and identifying if ligation of the oligonucleotide probe ABISG484/C
ABISG484/C
ABISG484/C
ABISG484/C
ABISG6484/C
AXX
AXX
ABISG6484/C
XXX
ABISG6484/C
ABISG66784/C
ABISG6784/C
ABISG6784/

đ sets occurred and correlating (using a computer) identified ligation to a presence or absence of the target nucleotide sequences. ABI82074 to ABI97546 represent oligonucleotide sequences used in the exemplification of the present invention 8X33333

Sequence 24 BP; 5 A; 7 C; 7 G; 5 T; 0 U; 0 Other;

ö Gaps ; 0 Length 24; Ouery Match
1.9%; Score 16.2; DB 1; Length 2
Best Local Similarity 85.7%; Pred. No. 1.7e+02;
Matches 18; Conservative 0; Mismatches 3; Indels

ò 유 RESULT 27 AB186485

B ABI86485 standard; DNA; 24

AB186485;

(first entry) 15-FEB-2002 Capture oligonucleotide Zip ID#2044 oligo #2.

Human, K-ras, PCR primer; probe; capture probe; mutation detection; ligase detection reaction; LDR; p53; BRCA1; BRCA2; infectious disease; infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer; oncogene; tumour suppressor; human papillomavirus; forensic; environmental monitoring; food industry; feed industry; ss.

Synthetic.

WO200179548-A2.

25-OCT-2001.

04-APR-2001; 2001WO-US010958.

14-APR-2000; 2000US-0197271P.

(CORR) CORNELL RES FOUND INC

Kliman Favis R, Gerry NP, Zirvi M, Barany F,

WPI; 2002-034366/04.

Designing capture oligonucleotide probes for use on a support to which complementary oligonucleotides hybridize with little mismatch.

Example 5; Fig 25; 300pp; English.

The present invention describes a method (M1) for designing capture oligonucleotide probes (I) for use on a support to which complementary oligonucleotide probes (II) for use on a support to which complementary conjectured probes (II) have melting temperatures within a narrow range. The method is useful for detecting infectious diseases caused by bacterial infectious agents e.g. Cryptococcus neoformans, Candida albicans and infectious agents e.g. Cryptococcus neoformans, Candida albicans and Aspergillus fumigautus, viruses e.g. T-cell lymphocytotrophis cirus, selected from Onchoverva volvulus, Entamoeba histolytica and bracuculus medinesis. The method is also useful for detecting genetic diseases such as 1 hydroxylase deficiency, Turner Syndrome and obesity defects.

Detecting cancer involving oncogenes, tumour suppressor genes, or genes involved in DNA amplification, replication, recombination or repair, the cancer is specifically associated with a gene selected from BRCA1 gene, p33 gene, human papillomavirus types 16 and 18 and liver cancers. The method is also used for environmental monitoring, forensics and the food and feed industry, detecting comprises scanning electron microscope and infrared microscope) the support at the particular sites and identifying if ligation of the oligonucleotide probe

```
ô
sets occurred and correlating (using a computer) identified ligation to a presence or absence of the target nucleotide sequences. ABI82074 to ABI97546 represent oligonucleotide sequences used in the exemplification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Method, oligonucleotides and arrays for parallel measurement of genetic variations, based on the incorporation of unique restriction endonuclease restriction sites flanking and encompassing genetic variation loci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a method, oligonucleotides and arrays for parallel measurement of genetic variations. The method is based on the presence of interrupted (non-palindromic) restriction endonuclease restriction sites (IRBRS) which flank and encompass genetic variation loci and is used for determining the identity of one or more nucleotides at a defined position in a single-stranded nucleic acid. Examples of estriction endonucleases which recognise interrupted sites are Bsli, EcoNI, AhdI, BslI and XmnI. The method of the invention involves the use of an immobilised antisense primer which anneals to the target nucleic
                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                             Genetic variation, genotyping, polymorphism detection, mutation detection, single nucleotide polymorphism detection, SNP detection, interrupted restriction site, non-palindromic, nucleotide array, diagnosis, cancer; genetic disorder; pathogenic organism, drug resistance, PCR; primer; ss.
                                                                                                               1.9%; Score 16.2; DB 1; Length 24; 85.7%; Pred. No. 1.7e+02; tive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                   Lambda allele #2 PCR primer RE5P04, SEQ ID NO:12.
                                                                                  Seguence 24 BP; 5 A; 7 C; 7 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Galas DJ, Garrison LK;
                                                                                                                                                                                   230 GACGGCCGTGGCTCAGCTCTT 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 2; Page 73; 135pp; English
                                                                                                                                                                                                          GATGGCCGTGGCTCAGATCCT 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0247275P.
2001US-0263971P.
2001US-0269244P.
2001US-0300319P.
2001US-0300350P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0237409P.
2000US-0247166P.
2000US-0247167P.
2000US-0247172P.
2000US-0247173P.
                                                                                                                                                                                                                                                                                                   ABL55265 standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-2001; 2001WO-US042432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (KECK-) KECK GRADUATE INST
                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                    Conservative
                                                      the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacteriophage lambda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-340099/37
                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200229006-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-JUN-2001;
21-JUN-2001;
27-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-NOV-2000;
10-NOV-2000;
10-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .0-NOV-2000;
                                                                                                                                                  18;
                                                                                                                                                                                                                                                                                                                                                                     28-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Van Ness J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-APR-2002
                                                                                                                                                                                                                                                                                                                                    ABL55265;
                                                                                                                    Query Match
                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                     RESULT 28
                                                                                                                                                                                                                                                                                   00000x8
                                                                                                                                                                                                                   g
                                                                                                                                                                                     ð
```

```
acid 3' of the position of interest, and a sense primer which corresponds to a sequence 5' of the position of interest. In addition, each primer includes part of the endonuclease recognition sequence, such that includes part of the endonuclease recognition sequence, such that carterial the nucleotide of interest is located in the variable region of the IRERS. The double-stranded DNA thus generated is then credion of the IRERS. The double-stranded DNA thus generated is then credion of the IRERS. The double-stranded DNA thus generated is then credion of the IRERS. The double-stranded DNA thus generated is then credion of the relevant restriction endonuclease, and the cleavage colored with the relevant restriction endonuclease; and the cleavage colored the restriction endonuclease; and the cleavage colored the restriction endonuclease; and the cleavage colored the restriction endonuclease; and arrays may be used to dentify mutations associated with a wide range of disease, including bladder carcinoma, colorectal tumours, sickle-cell anaemia, thalassaemias, alpha-l-antitrypsin deficiency, lesch-NWhan syndrome, cystic fibrosis/funcoviscias, burdened-dependent mental deficiency, harmochromatosis, severe combined immunodeficiency, albiniam, alkaptomuria, lysosomal storage disease, blers-ballos syndrome, alkaptomuria, lysosomal storage diseases, blers-ballos syndrome, alkaptomuria, lysosomal storage diseases, blers-ballos syndrome, alkaptomuria, lysosomal storage diseases, blers-ballos syndrome, companient, and von Hipple-Lindau disease. The method, primers and arrays myorialish and sociated with drug resistance. The method offers a corporative, and von Hipple-Lindau disease. The method of parallel measurement of genetic variations. The method, primers and employ readily available detection techniques. In an exemplification of the invention, an allele of interest from the bacteriophage lands and proper convenient, which was analysed by electrospray-liquid chromatography/mass
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    p53; mutant; mutation; cleavage; nuclease; cleavase; Thermus; Escherichia; Saccharomyces; Campylobacter; Mycobacterium; Shigella; Staphylococcus; identification; detection; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.9%; Score 16; DB 1; Length 24; 79.2%; Pred. No. 1.9e+02; ative 0; Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 24 BP; 2 A; 7 C; 8 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         370 AGCGTCTGGCCGTCCTGCCGC 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Primer for tyrosinase gene fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 Agcercrerrearcercereces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94US-00337164.
95US-00402601.
95US-00484956.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAT29081 standard; DNA; 19 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95WO-US014673.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-DEC-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-NOV-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9615267-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAT29081
               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

ö

09-MAR-1995;

```
from the group consisting of Cleavase (RTM) BN enzyme, Thermus aquaticus from the group consisting of Cleavase (RTM) BN enzyme, Thermus aquaticus DNA polymerase, Escherichia coli Sacoli and the Saccharomyces cerviviae Radi/RadiO complex. The nucleic acid substrate is preferably an oligonucleotide containing a human p53 gene sequence or alternatively, microbial gene sequences. Cleavage products are compared to the cleavage products of reference gene sequences. The method is used for detecting mutation in the human p53 gene; for identifying strains of microorganisms, especially bacteria selected from the the group of members of the genera Campylobacter. The method may also be used for the identification of viruses, especially hackeris compatitis C virus and similan immunodeficiency virus. The human tyrosinase sequence for the method. Three primers (AAT29080-81) was used as a test sequence for the method. Three primers (AAT29080-81) was used as a test other primers (AAT27689-90) and in combination, to amplify fragments of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                             Cleavage of nucleic acids to detect mutation(s) - allows detection esp. in human p53 gene, to identify strains of microorganisms and viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                              Oldenburg MC, Heisler LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCR primer; polymerase chain reaction; amplification; UM-STS; universal mammalian sequence tagged site; genomic map; clone; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.9%; Score 15.8; DB 1; Length 19; 89.5%; Pred. No. 1.4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 19 BP; 3 A; 2 C; 7 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Elastin PCR primer for universal mammalian STS's.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Yuzbasiyan-Gurkan V;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                              Brow MAD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                wild type and mutant tyrosinase genes
                                                                                                                                                                                                Example 10; Page 119; 433pp; English.
                             (THIR-) THIRD WAVE TECHNOLOGIES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               510 GCCAGTTTGGCATTTGGGA 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GCAAGTTTGGCTTTTGGGA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV01125 standard; DNA; 19 BP
30-AUG-1995; 95US-00520946.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97WO-US002403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96US-0012061P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (UNMI ) UNIV MICHIGAN.
(UNMS ) UNIV MICHIGAN STATE.
                                                              Lyamichev VI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Brewer GJ, Venta PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                               WPI; 1996-259862/26
                                                             Dahlberg JE, Lyam:
Fors L, Olive DM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9731012-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-AUG-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
ठे
```

```
The present sequence represents a specifically claimed oligonucleotide PCR primer. The oligonucleotide can be used for polymerase chain reaction of PDM, specifically regions of specific genes that are conserved among mammalian species, i.e. pairs of oligonucleotides from the present specification represent universal mammalian sequence-tagged site (UM-STS) primers. The primers are used to develop genomic maps, to isolate clones from libraries, to make cross-species comparisons and to develop additional genetic markers. UM-STS allow genomic comparisons to be made between more species
                                                                                                                                                                                                                                                                                                                                                                          ô
New oligonucleotide primers amplifying gene regions conserved among mammals - useful for developing genomic maps, isolating clones and making
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention comprises a gene panel constructed from the expression profile of known genes which show a change in expression level between normal liver cells and liver cells under regeneration. The gene panel is useful for providing expression data and screening/development of drugs for liver regeneration (e.g. when treating hepatitis, after transplantation or removal of the liver during cancer or hepatitis therapy). The present DNA sequence represents a PCR primer used in the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene panel participating in liver regeneration, applicable in providing expression data, diagnosis and development of drugs for promoting liver regeneration e.g. after transplantation or removal of liver during
                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCR; primer, ss; liver regeneration; gene panel; expression profile; drug screening; drug development; hepatitis; liver transplantation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Takahara Y, Fukuda H, Aburatani H;
                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                   1.9%; Score 15.8; DB 1; Length 19; 89.5%; Pred. No. 1.4e+02; rive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Liver regeneration-related gene panel PCR primer #115.
                                                                                                                                                                                                                                                                                                  Sequence 19 BP; 5 A; 6 C; 6 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 19; Page 76; 101pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                             136 CTGCTTTGGGGCTGCAGC 154
                                                                          Claim 1; Page 9; 26pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 19 crecriraececcicaec 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yokoya F, Okutsu T, Mori M,
Sonaka I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-MAR-2002; 2002WO-JP002372.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-MAR-2001; 2001JP-00070940.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 31
ABT13587/c
ID ABT13587 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                     cross-species comparisons.
                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 89.59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (AJIN ) AJINOMOTO CO INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-018922/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200277222-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-OCT-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABT13587;
   ଚ
                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

The state of the s

WPI; 1997-435083/40

RESULT 32

ð g

```
This invention describes novel antisense oligonucleotides (OGNS) (1) 8-20 nucleotides in length that specifically hybridize with and inhibit nucleic acids encoding human Fas-associated death domain (FADD), targeted exptes 3' untranslated region (3'UTR). (1) can be used to treat animals, especially humans, suspected of having or being prone to a disease or condition associated with FADD expression. AAZ44746-Z44831 represent primers and probes used in the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antisense oligonucleotides, useful for inhibiting human Fas-associated death domain (FADD) expression are targeted to the 3' untranslated region
                                                                                                               FADD; human; antisense; inhibitor; Fas-associated death domain; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ornithine decarboxylase-like protein; ODC-p; human;
central nervous system disease; testicular dysfunction; infertility;
cancer; diagnosis; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human ornithine decarboxylase-like protein gene 5' PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.9%; Score 15.8; DB 1; Length 20;
ilarity 89.5%; Pred. No. 1.5e+02;
Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 5 A; 8 C; 6 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                         Ξ
                                                                                                                                                                                                                                                                                                                                                                                                         Zhang
                                                                                                                                                                                                                                                                                                                                                                                                           BF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 3; Col 69-70; 37pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                233 GGCCGIGGCICAGCICITG 251
                                                                        Human FADD primer ISIS #101866.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20 decemberchachers 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  界
                                                                                                                                                                                                                                                                                                                                                                                                           Baker
                                                                                                                                                                                                                                                                                         99US-00357072,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-AUG-2002; 2002EP-00255559.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-AUG-2001; 2001US-0311063P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    754/c
ACC48754 standard; DNA; 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-AUG-2003 (first entry)
                                   19-APR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                           Monia BP, Cowsert LM,
                                                                                                                                                                                                                                                                                                                                                                     (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-126316/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of the FADD gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EP1283258-A1
                                                                                                                                                                                                                                                                                           19-JUL-1999;
                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                19-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-FEB-2003,
                                                                                                                                                                                                              US6015712-A
                                                                                                                                                                                                                                                    18-JAN-2000
                                                                                                                                      probe; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACC48754;
AAZ44829,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACC48754,
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The calpain large subunit 1 gene located on chromosome 15 codes for a calcium activated neutral protease (CANP3) belonging to the calpain family, Mutations in the gene induce limb-girdle muscular dystrophy (LGMD) 2 disease. The gene, and fragments of it, can be used in the prevention, treatment, diagnosis and detection of a predisposition to LGMD2 disease. Fifty primers (AAT32510-59) were used to specifically amplify the exons and splice junctions of the calpain large subunit 1 gene as well as the regions containing the putative CAT, TATA boxes and the polyadenylation signal. Two primers (AAT32534, AAT32535) were used to amplify exon 12 of the gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human novel Calpain large sub:unit 1 gene encoding a calcium dependent protease - used to develop prods. for the diagnosis and treatment of limb-girdle muscular dystrophy 2 disease.
                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                           Calpain; subunit; calcium; protease; mutation; treatment; detection; identification; diagnosis; limg girdle muscular dystrophy; LGMD2; calcium activated neutral protease; CANP; ss.
                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.9%; Score 15.8; DB 1; Length 20;
89.5%; Pred. No. 1.5e+02;
tive 0; Mismatches 2; Indels
                                       Length 19;
                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                        for exon 12 of the calpain large subunit 1 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 3 A; 1 C; 12 G; 4 T; 0 U; 0 Other;
Sequence 19 BP; 4 A; 7 C; 2 G; 6 T; 0 U; 0 Other;
                                     Score 15.8; DB 1;
Pred. No. 1.4e+02;
                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ASFR-) ASSOC FR CONTRE MYOPATHIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 16; Page 13; 66pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          394 GCACACACACCCTGCTCCA 412
                                                                                                                   761 GATGGCAGAACTGGAGAAG 779
                                                                                                                                                       19 GATTGCAGAACTGGAGATG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCACACTCACCCTCCTCCA 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAZ44829/c
ID AAZ44829 standard; DNA; 20 BP.
XX
                                                                                                                                                                                                                                   AAT32535/c
ID AAT32535 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94EP-00402668
                                     Query Match 1.9%;
Best Local Similarity 89.5%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Richard I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1996-268611/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9616175-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-NOV-1994;
                                                                                                                                                                                                                                                                                                                                  02-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Beckmann J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAY-1996
                                                                                                                                                                                                                                                                                             AAT32535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
```

RESULT 33

ઠ g

ö

Gaps

.

ö

Gaps

; 0

```
The primer (+ve polarity) corresponds to bases 678-700 from the cryptic plasmid of C. trachomatis L1 serovar, (Hatt et al., Nucleic Acids Research, 16:4053-4067,1998). It was used in conjunction with primer CP-38 (-ve polarity, AAQ11185), together designated Primer Set B, to generate a 173 bp amplicon by PCR. The DNA was then detected by a capture probe, CP-39 (-ve polarity; AAQ11186), using a plate assay. See also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The primers AAV62931-V62734 are used for the identification of Chlamydia trachomatis. After the target DNA has been amplified it is labelled with biotin. The labelled DNA is specifically captured by base-pair hybridization to an amplicon-specific oligonucleotide probe which is bound to a solid support and the labelled DNA is detected with a biotin dependent chromographic detection assay. (Updated on 25-MAR-2003 to correct PF field.) (Updated on 25-MAR-2003 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ss; Chlamydia trachomatis; identification; PCR; primer; amplification;
biotin dependent chromographic detection assay.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Primers and probes for Chlamydia trachomatis detection - by PCR amplification and hybridisation assay.
                                                                                                                                                                                1.9%; Score 15.8; DB 1; Length 23; 89.5%; Pred. No. 1.9e+02; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.9%; Score 15.8; DB 1; Length 23; 39.5%; Pred. No. 1.9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 23 BP; 4 A; 5 C; 9 G; 5 T; 0 U; 0 Other;
                                                                                                                                                  Sequence 23 BP; 4 A; 5 C; 9 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chlamydia trachomatis detection primer 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Silver SB, Sulzinski MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   땨.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 13; Page 17; 21pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HOFF ) HOFFMANN LA ROCHE & CO AG
                                                                                                                                                                                                                                                     885 GICCIGCAIGIGAGAACGI 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              885 GICCIGCATGTGAGAACGT 903
                                                                                                                                                                                                                                                                                   1 Greergerreadadader 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Grecreerreadadadeer 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98EP-00111076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89US-00414542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90EP-00118620.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89.5%;
                                                                                                                                                                                                                                                                                                                                                                      AAV62733 standard; DNA; 23
                                                                                                                                                                                                                                                                                                                                                                                                                                         (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17; Conservative
                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-559446/48.
                                                                                                                                                                                                 Local Similarity
les 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-SEP-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-SEP-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-SEP-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Longiaru M,
                                                                                                                                                                                                                                                                                                                                                                                                                                         25-MAR-2003
24-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EP875583-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                         AAV62733;
                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                      Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                    AAV62733
ID AAV6
*********
                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                           The present sequence is a 5' primer for the human ornithine decarboxylase -1ike protein (ODC-p) gene. The primer is based on ODC-p cDNA (see ACC4876) beginning 10 nucleatides upstream from the predicted start codon. PCR was performed using this primer to identify alternatively splice variants of ODC-p (see ACC48727-33), using brain and testis tissue libraries as template. ODC-p and its splice variants are involved in cell differentiation, and different isoforms are expressed in different stages of neuronal or spermatozoal differentiation. Assays for the detection of CDC-p and its splice variants, particularly relative to ODC, are useful in the detection and monitoring of a central nervous system disease such as dementia, in the diagnosis of individuals with testicular dysfunction or fertility problems, and for screening of early testicular cancer.

CNOTE: The present sequence is identified as Seq ID 1 in Example 1 and in the sequence listing (see ACC48745)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic acid molecule encoding an ornithine decarboxylase-like protein, useful for diagnosing and monitoring the treatment of Central Nervous System disease or testicular dysfunction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nucleic acid hybridisation assays - using a capture probe immobilised a solid support to bind a labelled target nucleic acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chlamydia trachomatis L1 serovar; cryptic plasmid; hybridisation; polymerase chain reaction; PCR; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 1.9%; Score 15.8; DB 1; Length 22; Best Local Similarity 89.5%; Pred. No. 1.8e+02; Matches 17; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 22 BP; 4 A; 8 C; 6 G; 4 T; 0 U; 0 Other;
                                              Pitkanen L;
              (ORTH ) ORTHO CLINICAL DIAGNOSTICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Longiaru M, Silver SB, Sulzinski MA;
                                                                                                                                                                                  Disclosure; Page 3; 46pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               451 ATGCCTTCCAGGAAGAGCT 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 42; Page 17; 21pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGCCTTGCAGGAGGAGCT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAQ11184 standard; DNA; 23 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          90EP-00118620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89US-00414542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HOFF ) HOFFMANN-LA ROCHE AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                              Heiskala M, Andersson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1991-095712/14.
                                                                                 WPI; 2003-364989/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-SEP-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-SEP-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JUN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Primer CP-37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-APR-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EP420260-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAQ11184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

; 0

Gaps

ö

```
The present sequence is a 5' primer for the human ornithine decarboxylase—like protein (ODC-p) gene. The primer is based on ODC-p CDNA (see ACC48026) beginning 10 nucleotides upstream from the predicted start codon. PCR was performed using this primer to identify alternatively splice variants of ODC-p (see ACC48727-13), using brain and testis tissue libraries as template. ODC-p and its splice variants are involved in cell differentiation, and different isoforms are expressed in different stages of neuronal or spermatozoal differentiation. Assays for the detection of ODC-p and its splice variants, particularly relative to ODC, are useful in the detection and monitoring of a central nervous system disease such as dementia, in the diagnosis of individuals with testicular dysfunction or fertility problems, and for screening of early testicular cancer
                                                                                                                                                                                                                                                                                  New nucleic acid molecule encoding an ornithine decarboxylase-like protein, useful for diagnosing and monitoring the treatment of Central Nervous System disease or testicular dysfunction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, PRO; EST; expressed sequence tag; PCR primer; hybridisation; probe; blood coagulation disorder; cancer; cellular adhesion disorder; secreted protein; transmembrane protein; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.9%; Score 15.8; DB 1; Length 23; 89.5%; Pred. No. 1.9e+02; ative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 23 BP; 4 A; 8 C; 6 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                          Heiskala M, Andersson LCL, Pitkanen L;
                                                                                                                                                                     (ORTH ) ORTHO CLINICAL DIAGNOSTICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human PRO1072 PCR forward primer.
                                                                                                                                                                                                                                                                                                                                                                 Example 1; Page 6; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          451 ATGCCTTCCAGGAAGAGCT 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0077450P.
98US-0077632P.
98US-0077641P.
98US-0077649P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGCCTTGCAGGAGGAGCT
                                                                                            08-AUG-2002; 2002EP-00255559
                                                                                                                                09-AUG-2001; 2001US-0311063P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ34149 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 89.5
Matches 17; Conservative
                                                                                                                                                                                                                                               WPI; 2003-364989/35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
12-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
Homo sapiens
                  EP1283258-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9946281-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-DEC-1999
                                                       12-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ34149;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 39
AAZ34149
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The Chlamydia trachomatis target nucleic sequences AAV62725-V62730 are used for the identification of Chlamydia trachomatis. After the target DNA has been amplified it is labelled with biotin. The labelled DNA is specifically captured by base-pair hybridization to an amplicon-specific oligonucleotide probe which is bound to a solid support and the labelled DNA is detected with a biotin dependent chromographic detection assay. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ornithine decarboxylase-like protein; ODC-p; human; central nervous system disease; testicular dysfunction; infertility; cancer; diagnosis; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Primers and probes for Chlamydia trachomatis detection - by PCR amplification and hybridisation assay.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ó,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human ornithine decarboxylase-like protein gene 5' PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.9%; Score 15.8; DB 1; Length 23; 89.5%; Pred. No. 1.9e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 23 BP; 5 A; 9 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                   ss; Chlamydia trachomatis; identification; biotin dependent chromographic detection assay.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sulzinski MA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ä
                                                                                                                                                                                                              Chlamydia trachomatis sequence 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                885 GTCCTGCATGTGAGACGT 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 8; Page 17; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HOFF ) HOFFMANN LA ROCHE & CO
                                                                         AAV62729 standard; DNA; 23 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACC48745 standard; DNA; 23 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Greergerraagagaacer
                                                                                                                                                                                                                                                                                                                                                                                                                             98EP-00111076
                                                                                                                                                                                                                                                                                                                                                                                                                                                               89US-00414542.
90EP-00118620.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                     (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Longiaru M, Silver SB,
                                                                                                                                                                                                                                                                                                            Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NPI; 1998-559446/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                             27-SEP-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-SEP-1989;
27-SEP-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                     25-MAR-2003
24-DEC-1998
                                                                                                                                                                                                                                                                                                                                                 EP875583-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                        04-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23
                                                                                                                AAV62729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACC48745
                                    RESULT 37
AAV62729/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 38
ACC48745/c
```

SXXXXXXXXXXXXXXX

ò g

ö

Gaps ·,

```
schu568-1.rng
```

```
98015-0078004P.
98015-0078910P.
98015-0078910P.
98015-00789396P.
98015-00789396P.
98015-0079966P.
98015-0079966P.
98015-0079961P.
98015-0079966P.
98015-0079966P.
98015-0079966P.
98015-0079961P.
98015-0079966P.
98015-0079966P.
98015-0079966P.
98015-0079961P.
98015-007996P.
 13 - MAR 11998 | 17 - MAR 11998 | 17 - MAR 11998 | 17 - MAR 11998 | 18 - M
```

ö

```
The present invention describes secreted and transmembrane polypeptides and their polymucleotides. The nucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic animals. The proteins can be used to treat a variety of diseases and disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion disorders. They may also be used to raise antibodies. AM23391 to AAZ34338, and AAY41685 to AAX41774 represent polymucleotide and polypeptide sequence given in the exemplification of the present invention
                                                                                                                                                                                                                                                         New secreted and transmembrane polypeptides and their polynucleotides, useful for treating blood coagulation disorders, cancers and cellular adhesion disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .;
0
                                                                                                                                                                                                        ۵,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 1.9%; Score 15.8; DB 1; Length 24; Best Local Similarity 89.5%; Pred. No. 2.1e+02; Matches 17; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                        Chen
                                                                                                                                                                                                        Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                        Yuan J,
                                                                                                                                                                                                                                                                                                                                Example 48; Page 222; 530pp; English
                                                                                                                                                                                                          Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 458 CCAGGAAGAGCTCCAGGAA 476
1 CCAGGAAATGCTCCAGGAA 19
98US-0086023P
98US-0086432P
98US-0086430P
98US-0086430P
98US-0087106P
98US-0087106P
98US-008720P
98US-008720P
                                                                                                                                                                                                        Gurney
                                                                                                                                                                         GETH ) GENENTECH INC
                                                                                                                                                                                                       Wood WI, Goddard A,
                                                                                                                                                                                                                                     WPI; 1999-551358/46.
 18-MAY-1998;
22-MAY-1998;
22-MAY-1998;
22-MAY-1998;
28-MAY-1998;
28-MAY-1998;
28-MAY-1998;
30-7UL-1998;
31-7UL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 40
    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
```

Human, secreted protein; transmembrane protein, PRO, EST, cytostatic; expressed sequence tag; detection; cancer; PCR primer; probe; ss. Human PRO1072 forward PCR primer SEQ ID NO:305. 99WO-US005028. 99US-0123957P. 99US-0130232P. 99US-0131445P. 99US-013445P. 2000WO-US004341 (first entry) WO200053756-A2 08-MAR-1999; 12-MAR-1999; 29-MAR-1999; 21-APR-1999; 24-MAY-1999; 23-JUN-1999; sapiens. 18-FEB-2000; 08-FEB-2001 14-SEP-2000 Ношо

e specy country

AAC78783 standard; DNA; 24 BP

AAC78783;

```
The invention relates to a novel polypeptide-human motor protein analogous protein 10.12, the polynucleotide encoding this polypeptide and a method for producing this polypeptide by using recombinant DNA technology. The invention also discloses the method for curing several diseases, such as protein metabolism discurbance related disease, membrane protein dysfunction related disease and cell withering
                                                                                                                                            Polypeptide-human myoglobulin IXA14.08 and polynucleotide for coding it.
                                                                                                                                                                                                                             The invention described a novel polypeptide-human myoglobulin IXA 14.08,
                                                                                                                                                                                                                                               the polymucleotide for coding it, the process for preparing the polymptide by DNA recombination, the application of the polymptide in treating diseases such as obesity and tumours, the antagonist of the polymptide and its medical action, and the application of the polymptide and its medical action, and the application of the polymorleotide are disclosed. This sequence represents a reverse transcriptase (RT)-PCR primer used to isolate cDNA encoding the human myoglobulin IXA 14.08 described in the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A novel polypeptide-human motor protein analogous protein 10.12 and polynucleotide for coding this polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Motor protein analogous protein 10.12; reverse transcriptase, protein metabolism disturbance related disease; Human; membrane protein dysfunction related disease; 8s; eell withering dysfunction related disease; PCR; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human motor protein analogous protein 10.12 RT-PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15.8; DB 1; Length 24; Pred. No. 2.18+02; 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 24 BP; 4 A; 7 C; 9 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 2; Page 21 (Disclosure); 38pp; Chinese.
                                                                                                                                                                                      Example 2; Page 17 (Disclosure); 32pp; Chinese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SHAN-) SHANGHAI BIODOOR GENE DEV CO LTD.
                        (BODE-) BODE GENE DEV CO LTD SHANGHAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            452 TGCCTTCCAGGAAGAGCTC 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 recerrecedadedere 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-JUN-2000; 2000CN-00116665.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-JUN-2000; 2000CN-00116665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABK50280 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 89.5'
                                                                                                       WPI; 2002-305500/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-305418/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mao Y, Xie Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CN1329083-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABK50280
                                                             Mao Y,
      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAC78458 to AAC78599 represent polynucleotide and EST (expressed sequence tag) sequences which encode secreted or transmembrane PRO polypeptides. The PRO polynucleotides and polypeptides have cytostatic activity. The polynucleotides and polypeptides can be used for detecting the presence of PRO polypeptides can be used for detecting the presence of PRO polypeptides in samples, for linking bioactive molecules to cells for specific targeting. The polypeptide targeting can be used to kill the target cells, e.g. for the treatment of cancers. The polypeptide pairs provide specific targeting of bioactive molecules to cells. AAC78670 to AAC78897 represent PCP primers and probes used in the isolation of the
                                                                                                                                                                                                                                                                                             KP, Botstein D, Desnoyers L, Eaton DL;
E, Fong S, Gao W, Gerber H, Gerritsen ME;
Pd, Grimaldi CJ, Gurney AL, Hillan KJ;
Napier MA, Pan J, Paoni NF, Roy MA, Shelton DL;
Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ದಿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel PRO polypeptides and polynucleotides used in detection methods, t
target bioactive molecules to specific cells, and to modulate cellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human myoglobulin IXA 14.08 reverse transcriptase (RT)-PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.9%; Score 15.8; DB 1; Length 24;
19.5%; Pred. No. 2.1e+02;
ve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; myoglobulin IXA 14.08; obesity; tumour; RT-PCR, reverse transcriptase PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 48; Page 278; 636pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  458 CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGGAAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABK51524 standard; DNA; 24 BP.
    99US-0145698P.
99US-0162506P.
99WO-US028313.
99WO-US028551.
                                                                                                                               99WO-US031243.
99WO-US031274.
                                                                                                                                                                    2000WO-US000219.
                                                                                       99WO-US028565
                                                                                                         99WO-US030095
                                                                                                                                                                                                              2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-JUN-2000; 2000CN-00116892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-JUN-2000; 2000CN-00116892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 89.5%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                               , Baker KP,
Filvaroff E,
                                                                                                                                                                                                                                                                                                                                    Godowski PJ,
Kuo SS, Na
                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-611443/58.
26-JUL-1999;
29-OCT-1999;
02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
30-DEC-1999;
30-DEC-1999;
06-JAN-2000;
                                                                                                                                                                                                              06-JAN-2000;
                                                                                                                                                                                                                                                                                                                 Ferrara N, Goddard A, (Kljavin IJ, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 target bioa
activities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CN1331191-A
```

ABK51524

RESULT 41 ABK51524

ò

ö

ä

dysfunction related disease by using this polypeptide. Also disclosed is an antagonist for resisting this polypeptide and its therapeutic action, and the application of the polymucleotide encoding this novel human motor protein analogous protein 10.12. The present sequence is a reverse transcriptase (RT)-PCP primer used to isolate the cDNA encoding human motor protein analogous protein 10.12

Sequence 24 BP; 5 A; 3 C; 7 G; 9 T; 0 U; 0 Other;

Gaps . 0 Query Match 1.9%; Score 15.8; DB 1; Length 24; Best Local Similarity 89.5%; Pred. No. 2.1e+02; Matches 17; Conservative 0; Mismatches 2; Indels 889 IGCAIGIGAGAACGIAIII 907 w ठ

ò

BP ABS61879 standard; DNA; 24 셤

(first entry) 05-NOV-2002 ABS61879;

Analyte sorting oligonucleotide tag; ss. Analyte sorting tag sequence #351.

Synthetic.

WO200259355-A2.

25-JAN-2002; 2002WO-CA000089 01-AUG-2002.

25-JAN-2001; 2001US-0263710P 10-JUL-2001; 2001US-0303799P

(TMBI-) IM BIOSCIENCE CORP.

Kobler D, Fieldhouse D;

WPI; 2002-619176/66.

Polynucleotides comprising minimally cross-hybridizing nucleotide sequences, useful as tags or tag complements for use in a wide variety cresearch, medical or industrial applications, e.g. in diagnostic assays or DNA sequencing.

οţ

Example 2; Page 64; 120pp; English.

The invention relates to a composition, which comprises molecules for use as tags or tag complements. Each molecule comprises an oligonucleotide selected from a set of oligonucleotides based on numeric identifiers (numerals 1-3) corresponding to the pattern of nucleotide bases present in 1168 nucleotide sequences fully defined in the specification. These oligonucleotides were found to be non-cross hybridising. The composition is useful as a tag or tag complement, in analysing a biological sample for the presence of a mutation or polymorphism at a locus in a nucleic acid, and in determining the presence of a target suspected of being contained in a mixture. Also for use in a wide variety of research, medical, or industrial applications, e.g. identification of disease-related polynucleotides in diagnostic assays, screening for clones of cover target polymucleotides, identification of specific polynucleotide in blots of mixtures of polynucleotides, therapeutic blocking of inappropriately expressed genes or DNA sequencing. The polynucleotides processing of analytes. The use of the polynucleotides provides minimal cross-hybridisation or cross-talk during the sorting process. Thus, any sequence within the family of sequences will not significantly.

and the second s

```
ö
cross-hybridise with any other sequence derived from that family, making it suitable for highly parallel processing of analytes. ABS61529-ABS62696 represent oligonuclectide tags of the invention
                                                                                                                                                                                                                                                          therapy;
                                                                                Gaps
                                                                                                                                                                                                                                      Secreted and transmembrane protein associated oligonucleotide #47.
                                                                                                                                                                                                                                                         Human, secreted and transmembrane protein, PRO, virucide, gene tell death, growth induction cascade, blood coagulation cascade viral infection, ss.
                                                                                0
                                                          Query Match
1.9%; Score 15.8; DB 1; Length 24;
Best Local Similarity 89.5%; Pred. No. 2.1e+02;
Matches 17; Conservative 0; Mismatches 2; Indels
                                       Sequence 24 BP; 8 A; 0 C; 6 G; 10 T; 0 U; 0 Other;
                                                                                                     907
                                                                                                                       5 rcaargrdagaaagrarrr 23
                                                                                                                                                                                                                                                                                                                                                                                9705-0062250P
9705-0064249P
9705-0066341P
9805-0077452P
9805-0077641P
9805-0077641P
9805-0077641P
9805-0077641P
9805-0077641P
9805-0077641P
9805-0077804P
9805-0078930P
9805-0078930P
9805-0078930P
9805-0078930P
9805-0078930P
9805-0078930P
9805-0078930P
9805-0078930P
9805-0078930P
9805-0079664P
9805-0079766P
9805-0079766P
9805-0079766P
9805-0079766P
9805-0080105P
9805-0080105P
9805-0080105P
9805-0080105P
9805-0080105P
9805-0080105P
9805-0080105P
                                                                                                                                                                          ACD42682 standard; DNA; 24 BP
                                                                                                     889 TGCATGTGAGAACGTATTT
                                                                                                                                                                                                                                                                                                                                                             2001US-00978191
                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                       US2003050239-A1.
                                                                                                                                                                                                                                                                                                                                                              15-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                              21-NOV-1997;
10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-MAR-1998
17-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
25-MAR-1998
25-MAR-1998
27-MAR-1998
27-MAR-1998
27-MAR-1998
27-MAR-1998
                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-MAR-1998;
30-MAR-1998;
30-MAR-1998;
31-MAR-1998;
31-MAR-1998;
31-MAR-1998;
01-APR-1998;
                                                                                                                                                                                                                  09-SEP-2003
                                                                                                                                                                                                                                                                                                                                           13-MAR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                      13-NOV-1997
                                                                                                                                                                                               ACD42682;
                                                                                                                                                      RESULT 44
                                                                                                                                                                 ACD42682
  88888
                                                                                                                       쉽
                                                                                                                                                                            ઠે
```

Fri Jul 30 10:32:03 2004

(GETH) GENENTECH INC.

9WO-US00502 9WG-0026568 9WG-0026721 9US-0123957 9US-0123957 9US-01310232 9US-01310232 9US-01310232 9US-0131023 9US-0131043 9US-0131043 9US-0131043	00000000000000000000000000000000000000	0000-000000000000000000000000000000000	0001007 - 000001007 - 00001007 - 00001007 - 00001007 - 00001007 - 00001007 -
8-MAR-199 0-MAR-199 0-MAR-199 2-MAR-199 2-MAR-199 9-MAR-199 6-APR-199 6-APR-199 8-APR-199 8-APR-199 8-APR-199 8-APR-199 8-APR-199	02-JUN-1999; 16-JUN-1999; 07-JUL-1999; 26-JUL-1999; 28-JUL-1999; 28-JUL-1999; 28-JUL-1999; 28-JUL-1999; 28-JUL-1999; 30-DEC-1999; 30-DEC-1999; 30-DEC-1999; 30-DEC-1999; 30-DEC-1999; 30-DEC-1999; 30-DEC-1999; 30-DEC-1999; 31-DE	4 - F558 - 200 4 - F588 - 200 5 - MAR - 200 6 - MAR - 200 7 - MAR - 200 8 - JUN - 200 8 - JUN - 200 1 - DEC - 200 6 -	8-FEB-200 2-MAR-200 2-MAR-200 0-MAY-200 0-MAY-200 1-UUN-200 1-UUN-200 0-UUN-200 0-UUN-200 0-UUN-200 0-UUN-200 0-UUN-200 0-UUN-200 0-UUN-200
		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	*

Botstein D, Desnoyers L, Baton DL; Fong S, Gao W, Gerber H, Gerritsen ME; DB 1; Length 24; 1.9%; Score 15.8; Ashkenazi AJ, Baker KP, Ferrara N, Filvaroff E,

```
New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer.
 ö
                                                                                                                                                              Human; secreted and transmembrane protein; PRO; antiinflammatory; antiarteriosclerotic; cardiant; anti-infertility; anti-HIV; cytostatic; antidiabetic; gene therapy; inflammatory disease; organ failure; atherosclerosis; cardiac injury; infertility; birth defect; premature aging; AIDS; cancer; diabetic complication; chromosome mapping; gene mapping; pharmaceutical; diagnostic; biosensor; bioreactor; tissue typing; PCR; primer; ss.
          Gaps
                                                                                                                                              Novel human secreted and transmembrane protein related primer #137
         ;
Pred. No. 2.1e+02;
0; Mismatches 2; Indels
                           CCAGGAAGAGCTCCAGGAA 476
                                     CCAGGAAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                             9705-0064249P
9705-0064249P
9705-0064249P
9705-0066364P
9805-00774641P
9805-0077641P
9805-0077649P
9805-0077649P
9805-0077649P
9805-0077649P
9805-0077649P
9805-0077664P
9805-0077664P
9805-0077664P
9805-00789766P
9805-0079766P
9805-0079766P
9805-0079766P
9805-0079766P
9805-0079766P
9805-0079766P
9805-0079766P
9805-0079766P
9805-007976P
9805-007976P
9805-0080127P
                                                                                         BP.
                                                                                                                                                                                                                                                                                              2001US-00999832
Best Local Similarity 89.5%;
Matches 17; Conservative
                                                                                         ACA63717 standard; DNA; 24
                                                                                                                             16-JUN-2003 (first entry)
                                                                                                                                                                                                                                                          US2002192706-A1.
                                                                                                                                                                                                                                                                                                                      13-NOV-1997;
13-NOV-1997;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
12-MAR-1998;
12-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
21-MAR-1998;
27-MAR-1998;
31-MAR-1998;
                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                            24-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-APR-1998;
09-APR-1998;
15-APR-1998;
                                                                                                                                                                                                                                                                           19-DEC-2002
                                                                                                                                                                                                                                                                                                               17-0CT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-APR-1998
09-APR-1998
                            458
                                                                                                           ACA63717;
                                            н
                                                                        RESULT 45
                                                                                 ACA63717
                                                                                           à
```

```
Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
Goddard A, Godowski PJ, Grimaldi UC, Gurney AL, Hillan KJ;
Kljavin IJ, Kuo SS, Napier M, Pan J, Paoni NF, Roy MA, Shelton DL;
Stewart TA, Tumas D, Williams PM, Wood WI;
15-APR-1998; 98US-0081819P.
15-APR-1998; 98US-0081838P.
15-APR-1998; 98US-0081952P.
21-APR-1998; 98US-0081952P.
22-APR-1998; 98US-0081952P.
22-APR-1998; 98US-0082568P.
22-APR-1998; 98US-0082709P.
22-APR-1998; 98US-0082709P.
22-APR-1998; 98US-0082709P.
22-APR-1998; 98US-0082709P.
22-APR-1999; 98US-0082704P.
22-APR-1999; 98US-0082704P.
22-APR-1999; 98US-0082704P.
22-APR-1999; 99WO-US012141.
23-APR-1999; 99WO-US012141.
24-MAR-1999; 99WO-US012124.
30-DEC-1999; 99WO-US012124.
31-DEC-1999; 99WO-US012124.
31-DEC-1999; 99WO-US012124.
32-DEC-1999; 99WO-US012124.
33-DEC-1999; 99WO-US0121274.
33-DEC-1999; 99WO-US012274.
33-DEC-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-328860/31.
```

Example 48; Page 151; 453pp; English.

The invention describes an isolated nucleic acid (I) comprising, or which is at least 80 % sequence identity to, or the full-length coding sequence of, any of 118 300-2100 nucleotide sequences, which encodes its corresponding PRO polypeptide selected from 118 100-700 amino acid sequences, all given in the specification. The nucleic acids and polypeptides are useful for treating inflammatory diseases, organ

100 mg

```
2000WO-US007532
                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US013705
2000WO-US014042
                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US014941
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US023328.
2000US-00709238.
2000US-00723749.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US032678
2000US-00747259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US006520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00816744.
2001US-00816920.
                                                                                                                                                                      99WO-US012252
                                                                                                                                                                                                                99WO-US028313
99WO-US028551
                                                                                                                                                                                                                                        99WO-US028565
                                                                                                                                                                                                                                                              99WO-US031243
                                                                                                                                                                                                                                                                                               2000WO-US000277
                                                                                                                                                                                                                                                                                                        2000WO-US000376
                                                                                                                                                                                                                                                                                                                    2000WO-US003565
                                                                                                                                                                                                                                                                                                                                          2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                     2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                               2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US008439
                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US020710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001WO-US009552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-328499/31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-DEC-2000;
20-DEC-2000;
28-FBB-2001;
22-MAR-2001;
22-MAR-2001;
22-MAR-2001;
10-MAY-2001;
10-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-MAY-2001;
01-JUN-2001;
01-JUN-2001;
05-JUN-2001;
14-JUN-2001;
                                                                                                                                                                                                                                                                                                      06-JAN-2000;
11-FEB-2000;
14-FEB-2000;
02-MAR-2000;
10-MAR-2000;
30-MAR-2000;
31-MAY-2000;
22-MAY-2000;
23-MAY-2000;
22-UVN-2000;
02-JUN-2000;
007-0CT-1998;
02-N0V-1998;
07-N0V-1998;
07-N0V-1998;
07-N0V-1998;
07-N0V-1999;
08-MAR-1999;
08-MAR-1999;
08-MAR-1999;
10-MAR-1999;
112-MAR-1999;
112-MAR-1999;
112-MAR-1999;
114-MAY-1999;
02-UN-1999;
25-AUG-1999;
25-AUG-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
02-DEC-1999;
                                                                                                                                                                                                                                                                      30-DEC-1999;
05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-AUG-2000;
08-NOV-2000;
27-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-JUN-2001;
09-JUL-2001;
30-JUL-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ashkenazi AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ferrara N,
Goddard A,
Kljavin IJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Stewart TA,
  ö
 failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, ALDS, cancer, or diabetic complications. The nucleic acids are useful as hybridisation probes, in chromosome and gene mapping, and in generating antisense RNA or DNA. The polypeptides are useful as pharmaceuticals, diagnostics, biosensors or bioreactors. Both are useful in tissue typing. This sequence represents a novel human secreted and transmembrane PRO polypeptide associated primer.
                                                                                                                                                                                                                                                                                                                              Human; ds; thrombolytic agent; interferon; interleukin; cytokine; erythropietin; colony stimulating factor; cancer; colorectal carcinoma; appprosis related condition; AIDS; amyortophic lateral sclerosis; inflammatory disease; asthma; atherosclerosis; neurodegenerative disease; gastrointestinal disorder; Alzheimer's disease; Parkinson's disease; phypertension; myocardial ischaemia; kidney disease; carcinogenesis; glomerulonephritis; lung disease; pulmonary hypertension; preeclampsia; bronchial asthma; gastric ulcer; renal failure; cardiovascular disease; inflammatory bowel disease; reproductive disorder; premature labour.
                                                                                                                                      Gaps
                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                        Human PRO polypeptide associated oligonucleotide SEQ ID NO 305.
                                                                                                              Query Match 1.9%; Score 15.8; DB 1; Length 24; Best Local Similarity 89.5%; Pred. No. 2.1e+02; Matches 17; Conservative 0; Mismatches 2; Indels
                                                                                          Seguence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                            458 CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                  ccaddaargcrccaddaa 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US - 0064249P
97US - 0064349P
97US - 0065364P
98US - 00774450P
98US - 0077441P
98US - 0077641P
98US - 0077641P
98US - 0077641P
98US - 0077649P
98US - 0077649P
98US - 0077641P
98US - 0078836P
98US - 0078836P
98US - 0078836P
98US - 0079664P
98US - 0079664P
98US - 0079668P
98US - 0079668P
98US - 0079668P
98US - 0079668P
                                                                                                                                                                                                                                         ACA71881 standard; DNA; 24 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-OCT-2001; 2001US-00978192
                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JS2002177553-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-MAR-1998
12-MAR-1998
13-MAR-1998
17-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAR-1998;
27-MAR-1998;
27-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-NOV-1997;
21-NOV-1997;
                                                                                                                                                                                                                                                                                     11-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-NOV-2002
                                                                                                                                                                                   Н
                                                                                                                                                                                                                                                                ACA71881;
                                                                                                                                                                                                                   RESULT 46
ACA71881
                                                                                                                                                                                                                                          88888888888
                                                                                                                                                             8
```

```
98US-0077641P

98US-0077641P

98US-0077641P

98US-0077641P

98US-0077641P

98US-007891D

98US-007891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25 - AUG-11999;
25 - AUG-11999;
30 - NOV-1999;
30 - NOV-1999;
30 - DEC-11999;
31 - DEC-11999;
31 - DEC-11999;
31 - DEC-11999;
32 - DEC-11999;
33 - DEC-11999;
34 - DEC-11999;
35 - DEC-11999;
36 - JAN-2000;
37 - MAR-2000;
38 - MAR-2000;
39 - MAR-2000;
30 - MAR-2000;
30 - MAR-2000;
31 - MAR-2000;
32 - MAR-2000;
32 - MAR-2000;
33 - MAR-2000;
34 - AUG-2000;
35 - DEC-2000;
36 - FEB-2001;
37 - NOV-2000;
38 - FEB-2001;
38 - DEC-2000;
39 - DEC-2000;
39 - DEC-2000;
30 - DEC-2000;
30 - DEC-2000;
31 - DEC-2000;
32 - MAR-2001;
32 - MAR-2001;
31 - MAR-2001;
32 - MAR-2001;
32 - MAR-2001;
35 - MAR-2001;
35 - MAR-2001;
36 - MAR-2001;
37 - MAR-2001;
38 - MAR-2001;
                                                                                                                                                              25. MAR. 1998
25. MAR. 1998
27. MAR. 1998
27. MAR. 1998
27. MAR. 1998
27. MAR. 1998
30. MAR. 1999
30. MAR. 1999
30. MAR. 1999
30. MAR. 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-APR-1999;
12-APR-1999;
14-MAY-1999;
14-MAY-1999;
02-JUN-1999;
     The invention relates to an isolated secreted and transmembrane polypeptide, designated as PRO polypeptide. The PRO polypeptide is useful in the pro polypeptide is useful for inking a bioactive molecule to a cell. The PRO polypeptide is useful for inking a bioactive molecule to a cell. The PRO polypeptide is useful for modulating a biological activity of a cell. The PRO polypeptide is useful for modulating a biological activity of a cell. The PRO polypeptide is useful in industrial applications including to plarmaceuticals, diagnostics, biosensors and bioreactors. The PRO collypeptide is a thrombolytic agent, interferon, collypeptide is a thrombolytic agent, interferon, interferon, interferon, expressive the PRO polypeptide is useful for treating disease such as amyotrophic lateral carcinoma, apoptosis related conditions e.g. AIDS, amyotrophic lateral carcinoma, apoptosis related conditions e.g. AIDS, anyotrophic lateral carcinovascular disease e.g. Aptheimer's disease, activities and inflammatory disease e.g. pulmonary hypertension and gomerulonephritis; lung disease e.g. pulmonary hypertension, bronchial asthmasy gastrointestinal disorders e.g. permature labour and preclampsia, carcinogenesis. The present sequence represents a PRO polypeptide associated oligonucleotide of the invention. Note: The special for this patent did not form part of the printed case sequence the sequence the precent than Proclampsia is related in electronic format directly from USPTO cat sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
 New isolated PRO polypeptides e.g. PRO213, PRO274 and PRO300, for use as pharmaceuticals, diagnostics, biosensors and bioreactors, for identifying modulators of receptor-ligand interactions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; PRO polypeptide; secreted and transmembrane protein; immune disorder; diabetes; hyper-insulinaemia; hypo-insulinaemia; cardiac insufficiency; nearvous system disorder; kidney disorder; bone disorder; cartilage disorder; arthritis; tumour; wound healing; genetic disorder; cytostatic; antidabetic; antiinflammatory; antiarthritis; anti-tumour; vulnerary; antianaemic; dermatological; cardiant; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 89.5%; Pred. No. 2.1e+02;
Matches 17; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;
                                                                         Disclosure; SEQ ID NO 305; 55pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human PRO DNA PCR primer SEQ ID No 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAGGAAGACTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  81US-00267213.
97US-0062250P.
97US-0064249P.
97US-0065311P.
97US-0066364P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABX92521 standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-OCT-2001; 2001US-00978697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-MAY-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2002169284-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-MAY-1981;
17-OCT-1997;
03-NOV-1997;
13-NOV-1997;
21-NOV-1997;
10-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABX92521;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 47
```

TOTAL STATE OF THE STATE OF THE

```
hepatitis; multiple sclerosis; gene therapy.
                                                                                                                                                                                                                       970S-0064249P.
970S-0065311P.
970S-0065364P.
98US-0077632P.
98US-0077641P.
98US-0077791P.
98US-0077791P.
98US-0078004P.
98US-00640220.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0079656P.
98US-0079663P.
98US-0079664P.
98US-0079689P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0079728P.
98US-0079786P.
98US-0079920P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0079923P.
98US-00105413.
98US-00168978.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US024855.
98US-00202054.
98US-00218517.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0078936P
98US-0078939P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-00184216
98US-00187368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US000106
99US-00254465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-00380138
                                                                                                                                                                 15-OCT-2001; 2001US-00978189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0079294P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US021141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-00265686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-00267213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-00311832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US012252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-00380137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-00284291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US005
                                                                                US2003004102-A1
                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               666
                                                                                                                          02-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7-MAR-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-MAY-1
02-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -VON-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0-MAR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5-AUG-
                                                                                                                                                                                                                                                                                                                                                                                                                 -MAR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0-MAR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-NOV-
  The present invention relates to the isolation of novel human PRO polypeptides, and the polynucleotide sequences encoding them. The PRO polypeptides are secreted and transmembrane proteins. The PRO polypeptides are useful for detecting other PRO polypeptides, for inking the proteins of calls expressing PRO polypeptides, for modulating biological activities of calls expressing PRO polypeptides, and for for identifying agonists or antagonists. The bioactive molecule maybe a coxin, radiolabel or antibody, and causes apoptosis or death of the cell. The PRO polypeptides are useful for treating immune disorders, diabetes or hyper- or hypo-inaulinaemia, cardiac insufficiency, nervous system disorders, kidney disorders, bone and cartilage disorders or arthritis, tumours, and wound healing. The polynucleotide sequences encoding PRO polypeptides are useful as hybridisation probes, in chromosome and gene mapping, in the generation of antisense RNA and DNA, in the preparation of PRO polypeptides, for generating transgenic animals or knockout animals, for the genetic analysis of individuals with genetic disorders, and in gene therapy. The present sequence represents a PCR primer used in the examples of the present invention. Note: The sequence data for this the present sequence represents a PCR primer used in the was obtained in electronic format directly from the USPTO web site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                 , Baker KP, Botstein D, Desnoyers L, Eaton D; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton DL; Tumas D, Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; ss; PCR; secreted protein; transmembrane protein; PRO; primer; malignancy; cancer; ovarian cancer; colorectal cancer; sarcoma; letkeemia; lymphoma; inflammatory disease; necrosis; atherosclerosis; infertility; premature aging; psoriasis; inflammatory disease; renal disease; arthritis; immune-mediated alopecia; stroke; encephalitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                              Novel secreted and transmembrane polypeptides and polynucleotides encoding them useful for treating cancer, kidney diseases, bone, cartilage disorders and immune deficiencies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.9%; Score 15.8; DB 1; Length 24; 89.5%; Pred. No. 2.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human secreted/transmembrane protein PRO1072 PCR primer #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        at seqdata.uspto.gov/psipsDIDEntry.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 48; Page 153; 459pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     458 CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccaddaardcrccaddaa 19
2001US-00872035.
2001WS-00874503.
2001US-00884503.
2001US-00886342.
2001WS-US019692.
2001WG-US021066.
2001WG-US021735.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACA66262 standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 89.5
Matches 17; Conservative
                                                                                                                                                                                                            (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-288163/28.
                                                                                19-JUN-2001; 20-JUN-2001; 29-JUN-2001; 29-JUL-2001; 20-JUL-2001; 20-JU
                                                                                                                                                                                                                                                      Ashkenazi A,
                                         05-JUN-2001;
                                                                                                                                                                                                                                                                         Ferrara N, E
Goddard A, G
Kljavin IJ,
Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACA66262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACA66262
    MAKAKAK KAKAKAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
```

scnuses-r.rng

```
22-MAY-2000; 2000WO-US014042.
30-MAY-2000; 2000WO-US014941.
30-JUN-2000; 2000WO-US015244.
28-JUL-2000; 2000WO-US025328.
24-AUG-2000; 2000WO-US023328.
10-NOV-2000; 2000WO-US023328.
10-NOV-2000; 2000WO-US032678.
21-DEC-2000; 2000WO-US032678.
20-DEC-2000; 2000WO-US034956.
20-DEC-2000; 2000WO-US034956.
22-MAR-2001; 2001WO-US034956.
22-MAR-2001; 2001WO-US034956.
22-MAR-2001; 2001WO-US016920.
22-MAR-2001; 2001WO-US016920.
10-MAY-2001; 2001WO-US016920.
10-MAY-2001; 2001WO-US017800.
10-JUN-2001; 2001WO-US017800.
10-JUN-2001; 2001WO-US017800.
10-JUN-2001; 2001WO-US017800.
20-JUN-2001; 2001WS-00882633.
19-JUN-2001; 2001WS-00882633.
20-JUN-2001; 2001WS-00882633.
30-JUL-2001; 2001WS-00882633.
```

(GETH) GENENTECH INC.

Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL; Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME; Goddard A, Godowski PJ, Grimaldi UC, Gurney AL, Hillan KJ; Kljavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton DL; Stewart TA, Tumas D, Williams PM, Wood WI;

WPI; 2003-341189/32

New genes and secreted and transmembrane polypeptides (e.g. PRO337 or PRO1559), useful for treating or diagnosing e.g. cancers, atherosclerosis, infertility, stroke, encephalitis, hepatitis or multiple sclerosis in mammals.

Example 48; Page 153; 460pp; English.

The invention relates to a new isolated nucleic acid molecule comprises a sequence with at least 80% identity to: (a) a nucleotide encoding any of 94 PRO polypeptides whose sequences are fully defined in the specification; or (b) any of 94 nucleotide sequences fully defined in the specification; or the full length coding sequence of any these 94 nucleotide sequences. Also included are an isolated PRO polypeptide sequences: Also included are an isolated PRO polypeptide sequences cited above (or an isolated PRO polypeptide having at least 80% amino acid sequence identity to: (a) an amino acid sequence conception; (b) the PRO polypeptide, lacking its associated signal peptide; or (c) an extracellular domain of the PRO polypeptide, with or specification; (b) the PRO polypeptide, lacking its associated signal peptide; a vascoiated signal peptide; a vascoiated signal peptide; a vascoiated signal peptide; a vascoiated signal peptide; a value of the PRO polypeptide fused concern comprising the vector (and producing a PRO polypeptides), a chimaeric molecule comprising the PRO polypeptide fused concern acid manner. PRO polypeptides or polymerlectides are useful as pharmaceuticals, disease, atherosclerosis, infertility, premature aging, psoriasis, concerned concerns are useful as pharmaceuticals, and in the disease, arthritis; immune-mediated alopecia, stroke, encephalitis, hepatitis, or multiple sclerosis in mammals. The PRO polypeptides are useful in drug screening, particularly as targets for therapeutic intervention in these diseases, and in the diagnostic determination of the presence of these diseases, and in the diagnostic determination. The PRO genes are useful as hybridisation probes, or for chromosome identification. The PRO genes are useful as hybridisation probes, or for

The state of the s

```
ö
                                                                                                                                                                                                                                                                                                      Human; secreted and transmembrane protein; PRO; gene; ss; tissue typing; chromosome identification; vaccine; cancer; retinal disorder; sports-related joint disorder; osteoarthritis; rheumatoid arthritis; wound healing; obesity; diabetes; extending loss; cardiac insufficiency disorder; kidney disorder; nervous system disorder; haemcglobin associated disorder; expressed sequence tag; EST.
   may
screening libraries of human cDNA, genomic DNA or mRNA. The PRO genes also be used in gene therapy, particularly for replacing a defective gene. The present sequence is a PCR primer used in the isolation of a cDNA encoding a PRO polypeptide
                                                                                                         Gaps
                                                                                                        ;
0
                                                                                                                                                                                                                                                                                  Secreted and transmembrane PRO protein associated primer #139
                                                                              1.9%; Score 15.8; DB 1; Length 24; 89.5%; Pred. No. 2.1e+02; tive 0; Mismatches 2; Indels
                                                          Seguence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                               458 CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                             ||||||||
| CCAGGAAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97US-0064249P
97US-0066341P
98US-0077450P
98US-0077641P
98US-0077641P
98US-0077641P
98US-0077641P
98US-007886P
98US-0078886P
98US-0078886P
98US-0078886P
98US-0078886P
98US-0078886P
98US-0078886P
98US-007886P
98US-007886P
98US-007886P
98US-007963P
98US-0080105P
98US-0080107P
98US-0080107P
                                                                                                                                                                                                               BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-00978564
                                                                                                                                                                                                               ADA24844 standard; DNA; 24
                                                                                                                                                                                                                                                             (first entry)
                                                                                             al Similarity 89.5
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                US2003050241-A1.
                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAR-1998;
26-MAR-1998;
27-MAR-1998;
27-MAR-1998;
27-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-NOV-1997;
21-NOV-1997;
10-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
                                                                                                                                                                                                                                                             20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                        13-MAR-2003.
                                                                                 Query Match
Best Local S:
Matches 17,
                                                                                                                                                                                                                                      ADA24844;
                                                                                                                                                                                                    ADA24844
                                                                                                                                                    ద
                                                                                                                                                                                                                8X333333
                                                                                                                                 ଚ
```

```
PR 09-APR-1998 9805-0081171P
PR 09-APR-1998 9805-0081171P
PR 10-APR-1998 9805-0081171P
PR 11-APR-1998 9805-0081203P
PR 11-APR-1998 9805-0081203P
PR 11-APR-1998 9805-0081203P
PR 12-APR-1998 9805-0081203P
PR 22-APR-1998 9805-008120P
PR 11-MAY-1998 9805-008120P
PR 12-MAY-1998 9805-008
```

21-APR-1999; 99US-0130232P.
26-APR-1999; 99US-0131444P.
14-MAY-1999; 99US-0131444P.
14-MAY-1999; 99US-0131428P.
16-JUN-1999; 99US-013428P.
25-JUN-1999; 99US-013557P.
26-JUL-1999; 99US-014569P.
26-JUL-1999; 99US-018557P.
26-JUL-1999; 99US-018557P.
26-JUL-1999; 99US-018557P.
26-JUL-1999; 99US-018557P.
26-JUL-1999; 99US-018557P.
26-JUL-1999; 99US-018569P.
26-JUL-2000; 2000WO-US001243.
26-JUL-2000; 2000WO-US0015641.
21-MAR-2000; 2000WO-US0015264.
22-MAR-2000; 2000WO-US0015264.
23-JUL-2000; 2000WO-US01370S.
22-MAR-2000; 2000WO-US01370S.
23-MAR-2000; 2000

(GETH) GENENTECH INC

Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
Goddard A, Goddwski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Kljavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton DL;
Stewart TA, Tumas D, Williams PM, Wood WI;

WPI; 2003-521814/49.

New isolated PRO polypeptides for example extracellular, secreted and membrane bound proteins, useful for modulating the biological activities of cells and for treating, for example diabetes, cancer, rheumatoid arthritis, and hearing loss.

Example 48; Page 158; 461pp; English.

The invention describes an isolated secreted and transmembrane (PRO) polypeptide (1). PRO337 polypeptide is useful for detecting PRO4993 polypeptide in a sample, and vice versa. PRO725. PRO700 and PRO700 and PRO700 and PRO700 and PRO700 is useful for detecting PRO725. PRO700 and PRO737 in a sample. PRO4993 is useful for linking a bioactive molecule to a cell expressing a PRO337 polypeptide, and PRO337 is useful for linking a bioactive molecule to a cell expressing a PRO4933 polypeptide. PRO735, PRO700 and PRO735, PRO700 and PRO735, PRO700 and PRO735, PRO700 and PRO739 polypeptide, and PRO735, PRO700 and PRO739 polypeptides are useful for

```
9804S-0081838P-
9804S-0081838P-
9804S-0081838P-
9804S-0081855P-
9804S-0082568P-
9804S-0082568P-
9804S-0082704P-
9804S-0082804P-
9804S-008338P-
9804S-0083496P-
9804S-009339P-
9804S-010339P-
9804S-010339P-
9904S-0113296P-
9904S-0113296P-
9904S-0113296P-
                                                                                                                                                                                                                               29-APR-1998
29-APR-1998
29-APR-1998
29-APR-1998
29-APR-1998
29-APR-1998
30-APR-1998
06-MAY-1998
06-MAY-1998
07-MAY-1998
07-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-MAY-1998;
13-MAY-1998;
15-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26 - MAY - 1998 | 26 - UUN - 1998 | 26 - UUN - 1998 | 26 - UUN - 1998 | 10 - UUL - 1998 | 10 - UUL - 1998 | 22 - DEC - 1998 | 22 - DEC - 1999 | 26 - UUN - 1999 | 12 - MAR - 1999 | 29 - MAR - 1999 | 26 - APR - 1
                                                                                                                                                                                                                                                                                                                                                                                                                                            07-MAY-1998;
07-MAY-1998;
07-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-MAY-1998
13-MAY-1998
      ö
                                                                                                                                                                                                                                                                                        Human; secreted and transmembrane protein; PRO; cell death; neuropathy; peripheral neuropathy; diabetic peripheral neuropathy; AIDS-associated neuropathy; Charcot-Marie-Tooth disease; Refusum's disease; Abetalipoproteinaemia; Tangier disease; Krabbe's disease; Metachromatic leukodystrophy; Fabry's disease; Dejerine-Sottas syndrome; chromosome mapping; gene mapping; gene therapy; pCR; primer; ss.
                                    Gaps
                                                                                                                                                                                                                                                                Novel human secreted and transmembrane protein related primer #137
                                    ..
0
    1.9%; Score 15.8; DB 1; Length 24;
89.5%; Pred. No. 2.1e+02;
rative 0; Mismatches 2; Indels
                                                                   458 CCAGGAAGAGCTCCAGGAA 476
                                                                                             ccaddaardcrccaddaa 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9705. 00642499.
9705. 0065311P.
9705. 0065311P.
9805. 0077641P.
9805. 0077641P.
9805. 00777641P.
9805. 0077891P.
9805. 0078910P.
9805. 0078930P.
9805. 0078930P.
9805. 0078930P.
9805. 007924P.
9805. 0079268P.
9805. 007928P.
9805. 007923P.
9805. 0079328P.
9805. 0079328P.
9805. 0079328P.
9805. 0080137P.
9805. 0080137P.
9805. 0080134P.
9805. 0080334P.
9805. 0080134P.
                                                                                                                                                                          BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-OCT-2001; 2001US-00978403
                                                                                                                                                                        ACD29863 standard; DNA; 24
                                                                                                                                                                                                                                   08-SEP-2003 (first entry)
Query Match
Best Local Similarity 89.5'
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003050240-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03 - NOV - 1997;
13 - NOV - 1997;
10 - MAR - 1998;
11 - MAR - 1998;
11 - MAR - 1998;
12 - MAR - 1998;
13 - MAR - 1998;
20 - MAR - 1998;
21 - MAR - 1998;
22 - MAR - 1998;
27 - MAR - 1998;
31 - MAR - 1998;
32 - MAR - 1998;
33 - MAR - 1998;
34 - MAR - 1998;
35 - MAR - 1998;
36 - MAR - 1998;
37 - MAR - 1998;
38 - MAR - 1998;
38 - MAR - 1998;
39 - MAR - 1998;
                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-MAR-2003
                                                                                                                                                                                                        ACD29863;
                                                                                                                                             20
                                                                                                                                          g
```

ADA12505 standard; DNA; 24 BP

RESULT 51 ADA12505 06-NOV-2003 (first entry)

ADA12505;

```
The invention describes an isolated, secreted and transmembrane polypeptide, termed PRO polypeptide (I). (I) is useful for detecting PRO493, PRO337, PRO155, PRO75, PRO700 or PRO739 polypeptide, and for linking a bioactive molecule to a cell expressing the above polypeptides. The bioactive molecule is a toxin, radiolabel or an antibody and causes cell death. (I) is useful as therapeutic agent, in medical and industrial applications e.g. for treating neuropathy, especially peripheral meuropathy, diabetic peripheral neuropathy, AIDS-associated neuropathy, Charcot-Marie-Tooth disease, Refusum's disease, Abetalipoproteinaemia, Tangier disease, Krabbe's disease, Metachromatic leukodystrophy, Fabry's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Kljavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton DL;
Stewart TA, Tumas D, Williams PM, Nood WL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel secreted and transmembrane polypeptide for modulating biological activity of cell expressing the polypeptide, identifying agonists or antagonists of polypeptide, and as molecular weight markers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 1.9%; Score 15.8; DB 1; Length 24; Best Local Similarity 89.5%; Pred. No. 2.1e+02; Matches 17; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 48; Page 153; 459pp; English.
99US-0139557P.
99US-0141037P.
99US-0142680P.
99US-014622P.
99US-0162506P.
99WO-US028313.
99WO-US028551.
99WO-US028551.
                                                                                                                                                                                                                                                                                 2000WO-US006319
2000WO-US007532.
2000WO-US008439.
2000WO-US013705.
2000WO-US014042.
                                                                                                                                                                                                                                        2000WO-US004341.
2000WO-US005004.
                                                                                                                                                                                                            2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US023328
2000WO-US032678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-503575/47.
                                                                        29-0CT-1999;
30-NOV-1999;
02-DEC-1999;
16-DEC-1999;
30-DEC-1999;
30-DEC-1999;
30-DEC-1999;
06-JAN-2000;
                                                                                                                                                                                                                                                                                 10-MAR-2000;
21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
                                                                                                                                                                                                         06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
24-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                      24-AUG-2000;
01-DEC-2000;
20-DEC-2000;
28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                           30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUN-2001;
```

```
primer; ss; inflammatory disease; organ failure; atherosclerosis; cardiac injury; infertility; birth defect; premature aging; AIDS; cancer; diabetic complication; tissue typing; human; PCR.
                                Human secreted/transmembrane polypeptide PRO1072 primer #1
                                                                                                                          9 ¢US - 0018049P.
9 7US - 0062250P.
9 7US - 0065311P.
9 7US - 0065311P.
9 8US - 0077632P.
9 8US - 0077643P.
9 8US - 0077643P.
9 8US - 0077643P.
9 8US - 0077632P.
9 8US - 0078936P.
9 8US - 0079666P.
9 8US - 0079666P.
                                                                                                                                                                                                                                                                        98US-0082704P.
98US-0082797P.
98US-0082804P.
                                                                                                              17-OCT-2001; 2001US-00978824
                                                                                    US2003055216-A1.
                                                                                                                                                                                                                                                                                                                                                      08-APR-1998;
09-APR-1998;
09-APR-1998;
09-APR-1998;
15-APR-1998;
15-APR-1998;
15-APR-1998;
15-APR-1999;
21-APR-1999;
21-APR-1999;
22-APR-1998;
                                                                       Homo sapiens
                                                                                                                                                                                     2-MAR-1998;
                                                                                                 20-MAR-2003
                                                                                                                                              13-NOV-1997
                                                                                                                                                     21-NOV-1997
```

ö

Gaps

ó;

à

```
98US-0082796P.
98US-0083332P.
98US-0083332P.
98US-0083332P.
98US-0083332P.
98US-0083499P.
98US-0083499P.
98US-0083499P.
98US-0083499P.
98US-0083499P.
98US-008358P.
98US-008358P.
98US-008358P.
98US-008358P.
98US-008358P.
98US-008358P.
98US-0083333P.
98US-0084414P.
98US-0083333P.
98US-0084640P.
98US-0084640P.
98US-008559P.
98US-008559P.
98US-0085533P.
98US-0086333P.
98US-0086333P.
98US-008559P.
98US-008559P.
98US-008559P.
98US-008559P.
98US-0085533P.
98US-008559P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0130232P.
99US-0131022P.
99US-0131445P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-00311832.
99US-0134287P.
99WO-US010733.
  23-APR-1998

27-APR-1998

29-APR-1998

29-APR-1998

29-APR-1998

29-APR-1998

29-APR-1998

29-APR-1998

29-APR-1998

29-APR-1998

30-APR-1998

30-AP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26 - UN - 1998

26 - UN - 1998

30 - UL - 1998

11 - SEP - 1998

07 - OCT - 1998

06 - UN - 1998

06 - UN - 1998

06 - UN - 1998

20 - UN - 1998

20 - UN - 1998

21 - DEC - 1998

22 - DEC - 1998

23 - DEC - 1999

06 - UN - 1999

06 - UN - 1999

10 - UN - 1999

10 - UN - 1999

11 - UN - 1999

12 - UN - 1999

13 - UN - 1999

14 - UN - 1999

15 - UN - 1999

16 - UN - 1999

17 - UN - 1999

18 - UN - 1999

18 - UN - 1999

19 - UN - 1999

10 - UN - 1999

11 - UN - 1999

12 - UN - 1999

13 - UN - 1999

14 - UN - 1999

15 - UN - 1999

16 - UN - 1999

17 - UN - 1999

18 - UN - 1999

18 - UN - 1999

19 - UN - 1999

19 - UN - 1999

10 - UN - 1999

11 - UN - 1999

12 - UN - 1999

13 - UN - 1999

14 - UN - 1999

15 - UN - 1999

16 - UN - 1999

17 - UN - 1999

18 - UN - 1999

18 - UN - 1999

19 - UN - 1999

19 - UN - 1999

10 - UN - 1999

11 - UN - 1999

12 - UN - 1999

13 - UN - 1999

14 - UN - 1999

15 - UN - 1999

16 - UN - 1999

17 - UN - 1999

18 - UN -
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Botstein D, Desnoyers L, Eaton DL; Fong S, Gao W, Gerber H, Gerritsen ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 1.9%; Score 15.8; DB 1; Length 24; Best Local Similarity 89.5%; Pred. No. 2.1e+02; Matches 17; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                          30-DEC-1999 99WO-US0312745.
30-DEC-1999 99WO-US0312745.
66-JAN-2000; 2000WO-US000219.
66-JAN-2000; 2000WO-US000377.
66-JAN-2000; 2000WO-US0003765.
11-FEB-2000; 2000WO-US0004341.
24-FEB-2000; 2000WO-US0004341.
24-MAR-2000; 2000WO-US006319.
21-MAR-2000; 2000WO-US006319.
21-MAR-2000; 2000WO-US0144442.
30-MAR-2000; 2000WO-US0144442.
30-MAR-2000; 2000WO-US014941.
30-MAR-2000; 2000WO-US014941.
30-MAR-2000; 2000WO-US014941.
30-MAR-2000; 2000WO-US014941.
30-MAR-2001; 2000WO-US033865.
30-MAR-2001; 2000WO-US033865.
30-MAR-2001; 2000WO-US033678.
30-MAR-2001; 2001WS-0008552.
30-MAR-2001; 2001WS-00854280.
30-MAR-2001; 2001WS-00854280.
31-MAR-2001; 2001WS-0081456.
31-MAR-2001; 2001WS-0081456.
31-MAR-2001; 2001WS-0081466.
31-MAR-2001; 2001WS-0081466.
31-MAY-2001; 2001WS-0081466.
31-MAY-2001; 2001WS-008146.
31-MAY-2001; 2001WS-008146.
31-MAY-2001; 2001WS-008146.
31-MAY-2001; 2001WS-008146.
31-MAY-2001; 2001WS-008146.
31-MAY-2001; 2001WS-008146.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP
             99US-0139557P.
99US-0141037P.
99US-014569BP.
99US-0146222P.
99US-00380137.
99US-00380137.
99US-0180138.
99US-0180138.
99WO-US028313.
99WO-US028551.
99WO-US028551.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGGAAATGCTCCAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACD29278 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ashkenazi AJ, Baker KP,
Ferrara N, Filvaroff E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GETH ) GENENTECH INC
             16 - UNA - 1999; 23 - UNA - 1999; 26 - UUL - UU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACD29278
ID ACD2
XX
AC ACD2
8 8
```

ö

ACD29278;

```
98US - 0082704P

98US - 0082797P

98US - 0082797P

98US - 0083732P

98US - 0083732P

98US - 0083732P

98US - 0083742P

98US - 0083752P

98US - 0083752P

98US - 0083752P

98US - 0083752P

98US - 0083742P

98US - 008463P

98US - 008653P

98US - 008574P

98US - 001034P

98US - 001034P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-00265686.
99WO-US005190
99US-0123957P
99US-0126773P.
99US-013022P.
99US-0131022P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US000106
99US-00254465
                  22-APR-1998;
22-APR-1998;
23-APR-1998;
24-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
66-MAY-1998;
66-MAY-1998;
66-MAY-1998;
67-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18 - MAY - 1998 | 22 - MAY 1998 | 23 - MAY 1998 | 24 - MAY 1998 | 26 - JUN 1998 | 27 - JUN 1998 | 23 - JUN 1998 | 22 - JUN 1998 | 22 - JUN 1998 | 23 - JUN 1998 | 24 - JUN 1998 | 25 - JUN 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-APR-1999;
26-APR-1999;
28-APR-1999;
  Human; secreted and transmembrane protein; PRO; viral infection; tumour growth; retinal disorder; injury; sight loss; retainties pigmentosum; age-related maculaat degeneration; sport-related joint problem; articular degeneration; sport-related joint problem; articular cartilage defect; osteoarthritis; rheumatoid arthritis; wound healing; obesity; diabetes; insulinaemia; kidney disorder; mesangial cell function; Berger disease; nephropathy; cardiac-insufficiency disorder; peripheral neuropathy; diabetic peripheral neuropathy; autonomic neuropathy; diabetic peripheral neuropathy; autonomic neuropathy; atony of the urinary bladder; post polio syndrom; Krabbe's disease; charcot Marie-Tooth disease; Fabry's disease; Tangier disease; Refsum's disease; Tangier Jangier Jangier Jangier Refsum's disease; Tangier Jangier 
                                                          Novel human secreted and transmembrane protein related primer #138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0062250P.
97US-0064449P.
97US-006638449P.
97US-0066384P.
97US-00776432P.
98US-00776432P.
98US-0077643P.
98US-0077649P.
98US-0077649P.
98US-0076638P.
98US-0078938P.
98US-0078938P.
98US-0078938P.
98US-0078938P.
98US-0078938P.
98US-0078938P.
98US-0079938P.
98US-0079938P.
98US-0079938P.
98US-0079938P.
98US-0080333P.
98US-0080333P.
98US-0080333P.
98US-0080333P.
98US-0080333P.
98US-0080333P.
98US-0080333P.
98US-0080333P.
98US-0080333P.
98US-0081071P.
98US-0081071P.
98US-0081071P.
98US-0081071P.
98US-0081203P.
98US-0081203P.
98US-0081203P.
98US-0081203P.
98US-0081203P.
98US-0081203P.
98US-0081203P.
98US-0081203P.
98US-0081203P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-OCT-2001; 2001US-00978585
                        27-AUG-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                        US2003049633-A1.
                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27 - MAR- 1998;
27 - MAR- 1998;
27 - MAR- 1998;
27 - MAR- 1998;
30 - MAR- 1998;
30 - MAR- 1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-WAR-1998
31-WAR-1998
31-MAR-1998
31-MAR-1998
01-APR-1998
01-APR-1998
01-APR-1998
01-APR-1998
08-APR-1998
08-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-APR-1998;
22-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-0CT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                            13-MAR-2003
```

```
Charcot-Marie-Tooth disorder, Refsum's disease; Krabbe's disease; chromosome mapping; gene mapping; genetic disorder; septic shock; antibacterial; immunosuppressive; neuroprotective; PCR; primer; s
                                                                                                                                                970S-0064249P
970S-0066344P
970S-0066364P
980S-0077452P
980S-0077642P
980S-0077642P
980S-0077642P
980S-0077642P
980S-0077642P
980S-0077642P
980S-0078934P
980S-0080334P
980S-0080334P
980S-0080334P
980S-008165P
980S-008165P
980S-008165P
980S-0081817P
980S-0081817P
980S-00818138P
980S-00818181P
                                                                                                                         2001US-00978608
                                                                          US2003045462-A1
                                                                                                                                                             13-NOV-1997;
13-NOV-1997;
13-NOV-1997;
10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
12-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
21-MAR-1998;
27-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                          30-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
01-APR-1998
01-APR-1998
01-APR-1998
01-APR-1998
01-APR-1998
08-APR-1998
08-APR-1998
                                                                                                                         16-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-APR-1998;
09-APR-1998;
15-APR-1998;
                                                  sapiens
                                                                                                   06-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-APR-1998
                                                   Ношо
  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human, PRO polypeptide, secreted protein; transmembrane protein; cell death; neuropathy; neuropathy related disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 15.8; DE
Pred. No. 2.1e+
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ccassaarscrccassaa 19
99US-00311832.
99US-0134287P
99WO-US012253.
99WO-US012257P
99US-0143698P
99US-0145698P
99US-015222P
99US-0162506P
                                                                                                                                                                                                                                                                                                              2000WO-US005841
2000WO-US006319
2000WO-US008439
2000WO-US013705
2000WO-US013705
2000WO-US014042
2000WO-US0152641
2000WO-US0152641
2000WO-US0152641
2000WO-US02338
2000WO-US02338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001WG-US006520.
2001US-00816744.
2001US-00816720.
2001US-00854208.
2001US-00854280.
2001US-00872035.
2001US-00872035.
2001US-00872035.
2001US-00872035.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US032678.
2000US-00747259.
2000WO-US034956.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human PRO DNA PCR primer #137
                                                                                                                                                                                                                                                                           2000WO-US003565
2000WO-US004341
2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADB73811 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 y Match
: Local Similarity
-hes 17; Conserve
 14 - MAY - 1999;

14 - MAY - 1999;

15 - JUN - 1999;

15 - JUN - 1999;

23 - JUN - 1999;

24 - JUL - 1999;

25 - JUL - 1999;

25 - JUL - 1999;

25 - JUL - 1999;

26 - JUL - 1999;

27 - JUL - 1999;

28 - JUL - 1999;

29 - OCT - 1999;

20 - DEC - 1999;

30 - DEC - 1999;

31 - DEC - 1999;

32 - JUN - 2000;

33 - DEC - 1999;

34 - FEB - 2000;

25 - JUN - 2000;

26 - JUN - 2000;

27 - MAY - 2000;

28 - JUL - 2000;

29 - JUN - 2000;

20 - DEC - 2000;

20 - DEC - 2000;

21 - MAR - 2000;

22 - MAR - 2001;

23 - MAR - 2001;

24 - MAR - 2001;

25 - MAR - 2001;

26 - JUN - 2001;

27 - MAR - 2001;

28 - JUN - 2001;

29 - MAR - 2001;

20 - MAR - 2001;

21 - MAR - 2001;

21 - MAR - 2001;

22 - MAR - 2001;

21 - MAR - 2001;

22 - MAR - 2001;

23 - MAR - 2001;

24 - JUN - 2001;

25 - MAR - 2001;

26 - JUN - 2001;

27 - MAR - 2001;

28 - JUN - 2001;

29 - JUN - 2001;

20 - JUN - 2001;

21 - JUN - 2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Η.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADB73811;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query
```

Sieve Sieve

. 원

ò

```
98US-008434659
98US-0084434659
98US-0084434179
98US-008454179
98US-00845379
98US-00846379
98US-00846379
98US-00846379
98US-00846379
98US-008464379
98US-008664389
98US-008664399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-00380137.
99US-00380138.
99US-00380142.
99US-0162506P.
99WO-US028511.
30 - APR - 1998;

05 - MAY - 1998;

06 - MAY - 1998;

07 - MAY - 1998;

13 - MAY - 1998;

13 - MAY - 1998;
                                                                                                        13-MAY-1998;
15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                  05-JAN-1999;
05-MAR-1999;
10-MAR-1999;
10-MAR-1999;
112-MAR-1999;
12-MAR-1999;
12-MAR-1999;
12-AR-1999;
12-AR-1999;
12-AR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-70N-1999;
23-70N-1999;
07-70L-1999;
26-70L-1999;
28-70L-1999;
25-AuG-1999;
25-AuG-1999;
                                                                                                                                                  -MAY-1998;
-MAY-1998;
-MAY-1998;
-MAY-1998;
-MAY-1998;
                                                                                                                                                                                                                                                                                  30-JUL-1998;
11-SEP-1998;
07-OCT-1998;
07-OCT-1998;
02-NOV-1998;
06-NOV-1998;
                                                                                                                                                                                                                                    -MAY-1998;
-MAY-1998;
-JUN-1998;
                                                                                                                                                                                                  -MAY-1998;
                                                                                                                                                                                                                                                                                                                                             .NOV-1998;
DEC-1998;
                                                                                                                                                                                                                   22-MAY-1998
28-MAY-1998
                                                                                                                                                                                                                                                                   26-JUN-1998
01-JUL-1998
                                                                                                                                                                                                                                                            26-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-JUN-1999
                                                                                                                                                                                                                                                                                                                                    8661-VON-0
```

```
Human, PRO polypeptide, secreted protein, transmembrane protein; cell death, neuropathy, neuropathy related disease, Charcot-Marie-Tooth disorder, Refsum's disease, Krabbe's disease, chromosome mapping; gene mapping; genetic disorder; septic shock; antibacterial; immunosuppressive; neuroprotective; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.9%; Score 15.8; DB 1; Length 24;
89.5%; Pred. No. 2.1e+02;
tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            458 CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ccaddaardcrccaddaa 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO DNA PCR primer #137.
99WO-US028565.
99WO-US030095.
99WO-US031274.
2000WO-US00219.
2000WO-US000376.
2000WO-US00376.
                                                                                                                                                                                                                                                                                                        2000MC-US005841-
2000MC-US006319-
2000MC-US008439-
2000MC-US013705-
2000MC-US013705-
2000MC-US013705-
2000MC-US013784-
2000MC-US015264-
2000MC-US015264-
2000MC-US015264-
2000MC-US015264-
2000MC-US01526-
2000MC-US0238-
2000MC-US0238-
2000MC-US0338-
2000MC-US0338-
2000MC-US038-
2000MC-US038-
2000MC-US038-
2001MC-US038-
2001M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001WO-US017800.
2001US-00874503.
2001US-00882636.
2001US-00886342.
2001WO-US019692.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADB76527 standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US017092
2001US-00872035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US021735
2001US-00918585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 89.5
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC.
                             16-DEC-11999;

30-DEC-11999;

30-DEC-11999;

50-JAN-2000;

10-FAB-2000;

110-FAB-2000;

120-FAB-2000;

120-FAB-2000;

130-FAB-2000;

130-FAB-2001;

130-FAB-2001;

130-FAB-2001;

130-FAB-2001;

130-FAB-2001;

130-FAB-2001;

130-FAB-2001;

140-FAB-2001;

150-FAB-2001;

160-FAB-2001;

170-FAB-2001;

170-FAB-2001;

180-FAB-2001;

180-FAB-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADB76527;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADB76527
         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BXSXXXXXXXX
```

ö

Gaps

US2003083248-A1

```
98US-0084640P

98US-0085339P

98US-0085333P

98US-0085333P

98US-0085533P

98US-0085533P

98US-0085533P

98US-008563P

98US-008563P

98US-008563P

98US-008563P

98US-0086414P

98US-008641P

98US-0113641P

99US-0113641P

99US-0113641P

99US-0113641P

99US-0113641P

99US-0113641P

99US-0113641P

99US-0113641P

99US-01146681P

99US-0146681P

99US-0146681P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US031243.
200WO-US031243.
200WO-US0002719.
200WO-US0002719.
200WO-US000376.
200WO-US003565.
200WO-US005841.
200WO-US005841.
200WO-US005841.
200WO-US005841.
200WO-US005841.
200WO-US00581.
200WO-US00581.
200WO-US00581.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-DEC-1999;
16-DEC-1999;
16-DEC-1999;
30-DEC-1999;
30-DEC-1999;
16-DEC-1999;
16-DEC-1999;
16-DEC-1999;
16-DEC-1999;
16-DEC-1999;
16-DEC-1999;
16-DEC-1999;
16-DEC-2000;
17-DEC-2000;
17-DEC-2000;
18-DEC-2000;
18-DEC-2000;
19-DEC-2000;
19-DEC-2000;
19-DEC-2000;
19-DEC-2000;
19-DEC-2000;
19-DEC-2000;
19-DEC-2000;
19-DEC-2000;
19-DEC-2000;
07-MAY-1998,
07-MAY-1998,
13-MAY-1998,
13-MAY-1998,
15-MAY-1998,
15-MAY-1998,
15-MAY-1998,
15-MAY-1998,
15-MAY-1998,
15-MAY-1998,
15-MAY-1998,
22-MAY-1998,
22-MAY-1998,
22-MAY-1998,
22-MAY-1998,
22-MAY-1998,
22-MAY-1998,
22-MAY-1998,
26-JUN-1998,
26-JUN-1998,
26-JUN-1998,
26-JUN-1998,
11-SEP-1998,
                                                                                                                                                                                                                                                                                                          07-0CT-1998;
20-NOV-1998;
20-NOV-1998;
22-DEC-1998;
05-JAN-1999;
08-JAN-1999;
10-MAR-1999;
12-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                      26-APR-19
28-APR-19
14-MAY-19
14-MAY-19
02-JUN-19
16-JUN-19
23-JUN-19
26-JUL-19
  9705-0064249P
9705-0064249P
9705-0066341P
9805-0077452P
9805-0077641P
9805-0077641P
9805-0077641P
9805-0077641P
9805-00776641P
9805-0078936P
9805-0078936P
9805-0078936P
9805-0078938P
9805-0079664P
9805-0080334P
9805-0080324P
9805-0081223P
9805-0081232P
9805-0081223P
9805-0081252P
9805-0081328P
9805-0081328P
9805-0081328P
9805-0081328P
9805-0081328P
9805-0081328P
9805-00813496P
9805-00833496P
9805-00833496P
9805-00833496P
9805-00833496P
9805-0083346P
9805-0083346P
9805-0083346P
9805-0083346P
9805-0083346P
9805-0083346P
9805-0083449E
9805-0083449E
                                    16-OCT-2001; 2001US-00978757
                                                        17 OCT - 1997,
13 NOV - 1997,
13 NOV - 1997,
21 NOV - 1997,
21 NOV - 1997,
22 NOV - 1997,
21 NOV - 1997,
22 NOV - 1998,
23 NAR - 1998,
24 NAR - 1998,
25 NAR - 1998,
26 NAR - 1998,
27 NAR - 1998,
28 NAR - 1998,
29 NAR - 1998,
30 NAR - 1998,
31 NAR - 1998,
31 NAR - 1998,
32 NAR - 1998,
33 NAR - 1998,
34 NAR - 1998,
35 NAR - 1998,
36 NAR - 1998,
37 NAR - 1998,
38 NAR - 1998,
39 NAR - 1998,
30 NAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -MAY-1998;
-MAY-1998;
-MAY-1998;
             01-MAY-2003
```

1000年

```
9705-0065311P

9705-0066311P

9805-0077643P

9805-0077643P

9805-0077643P

9805-0077643P

9805-0077643P

9805-0077791P

9805-0077791P

9805-0077791P

9805-0077791P

9805-0077791P

9805-0077929P

9805-0079653P

9805-0079728P

9805-0079728P

9805-0079728P

9805-0079728P

9805-0079728P

9805-0079728P

9805-0079728P

9805-008133P

9805-008133P

9805-008133P

9805-008123P

9805-008133P

9805-008123P

9805-008123P

9805-008123P

9805-008133P

9805-008133P

9805-008133P

9805-008133P

9805-008133P

9805-008133P

9805-008133P

9805-00814P

9805-008334P

9805-008334P

9805-008334P

9805-008334P

9805-008334P

9805-0083495P

9805-0083496P

9805-0083496P

9805-0083496P

9805-0083496P

9805-0083496P

9805-0083496P

9805-0083496P

9805-0083496P
                                                                                                                                                                                                                                                                                                                                                                                                                                         31-MAR-1998;
31-MAR-1998;
31-MAR-1998;
01-APR-1998;
01-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-MAY-1998;
13-MAY-1998;
13-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                         31-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-APR-1998
    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to the isolation of novel human PRO polypeptides are secreted and transmembrane proteins. The PRO polypeptides are secreted and transmembrane proteins. The PRO polypeptides are secreted and transmembrane proteins. The PRO polypeptides are useful for detecting other PRO polypeptides, for inhting biological activities of cells expressing PRO polypeptides, for modulating identifying agonists or antagonists. The biologicus molecule maybe a toxin, radiolabel or antibody, and cause cell death. The PRO polypeptides are useful for treating neuropathy and neuropathy related diseases such as Charcot-Marie-Tooth disorder, Refsum's disease, and Krabbe's disease. The polymucleotide sequences encoding PRO polypeptides are useful as hybridisation probes, in chromosome and gene mapping, in the generation of antisense RNA and DNA, in the preparation of PRO polypeptides, for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteopathritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                         J. Baker KP, Botstein D, Desnoyers L, Eaton DL; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton DL; Tumas D, Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                          New PRO polypeptides useful for treating peripheral neuropathy, neuropathies associated with systemic disease such as post-polio syndrome or AIDS-associated syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .;
o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 89.5%; Pred. No. 2.1e+02;
Matches 17; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                             Example 48; Page 151; 425pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              458 CCAGGAAGACCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ccaddaargcrccaddaa 19
                    2001WO-US017092.
2001WO-US017800.
2001WO-US019692.
2001WO-US021066.
2001WO-US021735.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-OCT-2001; 2001US-00981915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0062250P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human PRO 1072 PCR primer #1
                                                                                                                    2001US-00918585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADC43953 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-DEC-2003 (first entry)
                                                                                                                                                         (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                            WPI; 2003-755118/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003054986-A1.
                      25-MAY-2001;
01-JUN-2001;
20-JUN-2001;
                                                                            29-JUN-2001;
09-JUL-2001;
30-JUL-2001;
                                                                                                                                                                                                               Ferrara N, F
Goddard A, G
Kljavin IJ, S
Stewart IA,
                                                                                                                                                                                             Ashkenazi AJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-OCT-1997;
03-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAR-2003
      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 THE STANDARD STANDARD
```

17-MAY-2000; 2000WO-US013705.
22-MAY-2000; 2000WO-US014042.
30-MAY-2000; 2000WO-US015264.
28-JUL-2000; 2000WO-US015264.
28-JUL-2000; 2000WO-US015264.
28-JUL-2000; 2000WO-US01328.
08-NOV-2000; 2000WO-US03328.
27-NOV-2000; 2000WC-US032678.
20-DEC-2000; 2000WO-US034956.
20-DEC-2000; 2000WO-US034956.
22-MAR-2001; 2001WC-00806520.
22-MAR-2001; 2001WC-00816920.
22-MAR-2001; 2001WC-00816920.
22-MAR-2001; 2001WC-00816920.
22-MAR-2001; 2001WC-00816920.
22-MAR-2001; 2001WC-00816920.
25-MAY-2001; 2001WC-00817092.
10-MAY-2001; 2001WC-00817092.
10-MAY-2001; 2001WC-00817092.
10-MAY-2001; 2001WC-00817092.
10-MAY-2001; 2001WC-00816982.
25-MAY-2001; 2001WC-00816982.
25-MAY-2001; 2001WC-00816982.
25-JUN-2001; 2001WC-00816592.
29-JUN-2001; 2001WC-00818585.

(GETH) GENENTECH INC

Page

```
98US - 0085573P

98US - 0085573P

98US - 0085582P

98US - 0085689P

98US - 0085689P

98US - 0085689P

98US - 0085689P

98US - 0085704P

98US - 0010581P

98US - 0010581P

98US - 0010581P

98US - 0101235P

98US - 0101328P

99US - 011322P

99US - 011322P

99US - 011322P

99US - 011322P

99US - 011362P

99US - 01288P

99US - 01380142

99US - 01288P

99US - 01380142

99US - 01288P

99US - 01380142

99US - 01080134

90US - 01080
  15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
16-MAY-1998;
17-MAY-1998;
18-MAY-1998;
18-MAY-1999;
18-MAY-1998;
18-MA
```

```
ö
                                                                                                                                                                                                 Human, ss, PCR; secreted protein, transmembrane protein, PRO, cytostatic, ophthalmological, antiarthritis, osteopathic; antirheumatic; vulnerary; auditory, tumour growth, retinal disorder; sports-related joint problem, articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                     Gaps
                      ö
Score 15.8; DB 1; Length 2
Pred. No. 2.1e+02;
0; Mismatches 2; Indels
                                         CCAGGAAGACTCCAGGAA 476
||||||||
|CCAGGAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                                                              97US-0062250P.
97US-0064249P.
97US-0065311P.
98US-0077450P.
98US-0077632P.
98US-0077641P.
98US-0077641P.
                                                                                                                 BP
 Query Match
Best Local Similarity 89.5%;
Matches 17; Conservative
                                                                                                                                                                             Human PRO 1072 PCR primer #1
                                                                                                                                                                                                                                                                                                                            2001US-00017081
                                                                                                                 24
                                                                                                                                                          entry)
                                                                                                                 ADC61713 standard; DNA;
                                                                                                                                                         18-DEC-2003 (first
                                                                                                                                                                                                                                                                                  US2003049684-A1.
                                                                                                                                                                                                                                                                                                                                              17-OCT-1997;
03-NOV-1997;
13-NOV-1997;
12-NOV-1997;
10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                           24-OCT-2001;
                                                                                                                                                                                                                                                                                                       13-MAR-2003
                                          458
                                                                                                                                     ADC61713;
                                                           н
                                                                                             26
                                                                                                      RESULT
                                           ð
                                                         원
```

THE RESERVE OF THE PERSON OF T

i Persy Street

ï

	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	18-MAY-1998, 22-MAY-1998, 22-MAY-1998, 22-MAY-1998, 22-MAY-1998, 22-MAY-1998, 22-MAY-1998, 23-MAY-1998, 24-MAY-1998, 26-UN-1998, 36-UN-1998, 36-UN-1998, 36-UN-1998, 36-UN-1998, 36-UN-1999, 36-UN-2000, 36-UN-200
1-1.rng	κ
schu568-1.rng	
10:32:03 2004	98US - 00140220 . 98US - 00140220 . 98US - 00140220 . 98US - 00140220 . 98US - 00179234 P. 98US - 00179664 P. 98US - 0017966 P. 98US - 0017966 P. 98US - 0017966 P. 98US - 001796 P. 98US - 001797 P. 98US - 00179 P. 98US - 00170 P. 98US - 00170 P. 98US - 00170 P. 98US - 00170 P. 98US - 001
Jul 30	13 - WAR - 1998 20 - WAR - 1998 21 - WAR - 1998 22 - WAR - 1998 23 - WAR - 1998 24 - WAR - 1998 25 - WAR - 1998 26 - WAR - 1998 27 - WAR - 1998 28 - APR - 1998 29 - APR - 1998 21 - APR - 1998 22 - APR - 1998 22 - APR - 1998 23 - APR - 1998 24 - APR - 1998 25 - APR - 1998 26 - APR - 1998 27 - WAR - 1998 28 - APR - 1998 29 - APR - 1998 21 - APR - 1998 21 - APR - 1998 21 - APR - 1998 22 - APR - 1998 21 - APR - 1998 22 - APR - 1998 21 - APR - 1998 22 - APR - 1998 21 - APR - 1998 22 - APR - 1998 21 - APR - 1998 22 - APR - 1998 22 - APR - 1998 23 - APR - 1998 24 - APR - 1998 25 - APR - 1998 26 - APR - 1998 27 - APR - 1998 28 - APR - 1998 29 - APR - 1998 21 - APR - 1998 21 - APR - 1998 22 - APR - 1998 23 - APR - 1998 24 - APR - 1998 25 - APR - 1998 26 - APR - 1998 27 - APR - 1998 28 - APR - 1998 29 - APR - 1998 21 - APR - 1998 21 - APR - 1998 22 - APR - 1998 23 - APR - 1998 24 - APR - 1998 26 - APR - 1998 27 - APR - 1998 28 - APR - 1998 29 - APR - 1998 29 - APR - 1998 20 - APR - 1998 21 - APR - 1998 21 - APR - 1998 21 - APR - 1998 21 - APR - 1998 22 - APR - 1998 23 - APR - 1998 24 - APR - 1998 25 - APR - 1998 26 - APR - 1998 27 - APR - 1998 28 - APR - 1998 29 - APR - 1998 20 - APR - 1998 21 - A
Fri	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

98US-0086023P 98US-0086414P 98US-0086414P 98US-0086414P 98US-008648B 98US-0087108P 98US-0018171 99US-0113232P 99US-0113232P 99US-0113232P 99US-0113232P 99US-01131452P 99US-01131487P 99US-01131487P 99US-01131487P 99US-01131487P 99US-01131487P 99US-01131487P 99US-01131487P 99US-01131487P 99US-01131487P 99US-0131487P 99US-0131487

```
26-MAR-1998,
27-MAR-1998,
27-MAR-1998,
30-MAR-1998,
31-MAR-1998,
32-MAR-1998,
32-MAR-1998,
32-MAR-1998,
32-MAR-1998,
32-MAR-1998,
32-MAR-1998,
32-MAR-1998,
32-MAR-1998,
32-MAR-1998,
33-MAR-1998,
33-MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-MAY-1998;
15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
     Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteopathritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                     Length 24;
                                                                                                                                                                                                                                                                                                         Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton
                                                                                                                                                                                                                                                                                                                                   1.9%; Score 15.8; DB 1;
89.5%; Pred. No. 2.1e+02;
tive 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                           CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGGAAATGCTCCAGGAA 19
01-DEC-2000, 2000WO-US032678.
20-DEC-2000, 2000WS-US047259.
20-DEC-2000, 2000WS-US047259.
22-DCC-2000, 2000WS-US06520.
22-MAR-2001, 2001WS-US06520.
22-MAR-2001, 2001WS-US06520.
22-MAR-2001, 2001WS-US06520.
10-MAY-2001, 2001WS-US06520.
10-MAY-2001, 2001WS-US06520.
10-MAY-2001, 2001WS-US06520.
25-MAY-2001, 2001WS-US017092.
10-MAY-2001, 2001WS-US017092.
11-JUN-2001, 2001WS-US017090.
11-JUN-2001, 2001WS-US01760.
12-JUN-2001, 2001WS-US01760.
13-JUN-2001, 2001WS-US017692.
20-JUN-2001, 2001WS-US017692.
20-JUN-2001, 2001WS-US017692.
30-JUL-2001, 2001WS-US01765.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0062250P.
97US-0064249P.
97US-0065341P.
98US-0077450P.
98US-0077641P.
98US-0077641P.
98US-0077641P.
98US-0077641P.
98US-0078041P.
98US-0078041P.
98US-007891P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human PRO 1072 PCR primer #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-OCT-2001; 2001US-00999833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADC63677 standard; DNA;
                                                                                                                                                                                                                                                                                GENENTECH INC
                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2003054405-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-OCT-1997;
03-NOV-1997;
21-NOV-1997;
21-NOV-1997;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
12-MAR-1998;
13-MAR-1998;
20-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                             458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADC63677;
                                                                                                                                                                                                                                                                                (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                                                                                                              G
```

9801S-0079658P 9801S-0079668P 9801S-0079668P 9801S-007978P 9801S-007978P 9801S-007978P 9801S-007978P 9801S-0080107P 98

```
ઠે
                                                                                                                                                                                   g
                                                                                                                                                                                                                                   98US-0087106P.
98US-0087208P.
98US-001050863P.
98US-009185P.
98US-0094651P.
98US-0094651P.
98US-00108978.
98US-00108978.
98US-00108304P.
98US-00184216.
98US-00184216.
98US-00184216.
98US-00184216.
98US-00184216.
98US-00184216.
98US-00184216.
98US-00184216.
98US-0018517.
98US-0113296P.
99US-00218517.
                                                                                                                                                                                   9905-00267213

9905-01239579-

9905-0130232P-

9905-0131022P-

9905-0131022P-

9905-0131022P-

9905-0134287P-

9905-0134287P-

9905-0134287P-

9905-0134287P-

9905-0134287P-

9905-0134287P-

9905-0141037P-

9905-0146698P-

9905-0146698P-

9905-0146698P-

9905-0146698P-

9905-0146222P-

9905-0146222P-

9905-0146222P-

9905-014622P-

9905-0186138-

9905-0186138-
                                                                                                                                                                                                                                                                                                                                                          99WO-US028551.
99WO-US028565.
99WO-US030095.
                                                                                                                                                                              99WO-US005190
                                                                                                                                                                                                                                                                                                                                                                                  99WO-US031243
                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US0
                                                                                                                                                                                                                                                                                                                                                                                                05-JAN-2000;
06-JAN-2000;
06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
24-FEB-2000;
26 - MAY - 1998,
26 - JUN - 1998,
30 - JUL - 1998,
31 - JUL - 1998,
77 - CCT - 1998,
07 - CCT - 1998,
02 - NOV - 1998,
06 - NOV - 1998,
                                                                                               20-NOV-1998
20-NOV-1998
                                                                                                                                              -JAN-1999
                                                                                                                                                                                                                                                                                                                                                          02-DEC-1999
                                                                                                                                                                                                                                                                                                                  -AUG-1
-AUG-1
-AUG-1
```

vulnerary, virucide, neuroprotective, cytostatic; gene therapy; tumour cell proliferation inhibitor; secereted and transmembrane protein; PRO; viral infection; wound healing; tissue growth, muscle generation, muscle regeneration; amyotrophic lateral sclerosis, neuropathy, AIDS-associated neuropathy; diabetic peripheral neuropathy; chromosome identification; antagonist; tissue typing; immunohistochemical staining; primer; ss.

Human PRO 1072 PCR primer #1.

(first entry)

18-DEC-2003

ADC66777;

97US - 0062250P.
97US - 006424PP.
97US - 006434PP.
97US - 006334P.
98US - 0077450P.
98US - 0077641P.

13-MAR-1998; 17-MAR-1998; 20-MAR-1998;

-MAR-1998;

30-JUL-2001; 2001US-00918585

Homo sapiens. US2003060406-A1.

27-MAR-2003

98US-0079664P. 98US-0079689P. 98US-0079728P.

```
PR 22-MAR-2001; 2001W0-US009552.
PR 10-MAY-2001; 2001US-00654208.
PR 10-MAY-2001; 2001US-00654208.
PR 25-MAY-2001; 2001US-00654208.
PR 01-UTN-2001; 2001US-00617092.
PR 01-UTN-2001; 2001US-00876303.
PR 01-UTN-2001; 2001US-00886342.
PR 19-UTN-2001; 2001US-00886342.
PR 19-UTN-2001; 2001US-00886342.
PR 20-UTN-2001; 2001W0-US011662.
PR 29-UTN-2001; 2001W0-US011662.
PR 20-UTN-2001; 2001W0-US011662.
```

```
27-MAR-1998; 98US-0079786P
30-MAR-1998; 98US-0079920P
30-MAR-1998; 98US-0079920P
31-MAR-1998; 98US-0079920P
31-MAR-1998; 98US-00105413.
62-JUN-1998; 98US-00105413.
62-JUN-1998; 98US-00105413.
62-NOV-1998; 98US-001084216.
66-NOV-1998; 98US-001084216.
66-NOV-1998; 98US-001084216.
66-NOV-1998; 98US-001084216.
66-NOV-1998; 98US-001084216.
66-NOV-1998; 98US-001084216.
66-NOV-1999; 98US-001084216.
66-NOV-1999; 98US-001084217.
65-JAN-1999; 99US-00264851.
12-MAR-1999; 99US-00265686.
10-MAR-1999; 99US-00265686.
11-MAR-1999; 99US-00267133.
25-AUG-1999; 99US-00267133.
25-AUG-1999; 99US-00267131.
25-AUG-1999; 99US-00267131.
25-AUG-1999; 99US-00267131.
25-AUG-1999; 99US-00267131.
26-DEC-1999; 99US-0026713.
27-MAR-2000; 2000WO-US006753.
28-DEC-1999; 99US-0026713.
28-DUN-2000; 2000WO-US00753.
29-MAR-2000; 2000WO-US00753.
20-MAR-2000; 2000WO-US00753.
20-MAR-2001; 2001WS-0US0753.
2
```

(GETH) GENENTECH INC.

Desnoyers L, Baton DL; W, Gerber H, Gerritsen ME; Gurney AL, Hillan KJ; Botstein D, D Fong S, Gao W Grimaldi JC, AJ, Baker KP, Filvaroff E, Godowski PJ, Ashkenazi AJ, Ferrara N, Goddard A,

The invention describes an isolated secereted and transmembrane PRO polypeptide (I). PRO polypeptide such as PRO213, PRO700, PRO320 or PRO615 is useful in biotechnological and medical research, as well as in various industrial applications. PRO polypeptide such as PRO300, PRO366, PRO703, PRO703, PRO703, PRO361, PRO352, PRO351, PRO352, PRO361, PRO615, PRO861, PRO616, Is useful for the areament of wound healing, tissue growth and the uscleding in the defects of viral infection. PRO200 is useful for the treatment of wound healing, tissue growth and amystrophic lateral sclerosis, neuropathy, AIDS-associated neuropathy or diabetic peripheral neuropathy. A polynucleotide (II) encoding (I) is amystrophic lateral sclerosis, neuropathy, AIDS-associated neuropathy or useful for generating transgenic animals or knockout animals which are cuseful in the development and screaning of therapeutically useful cuseful in the development and screaning of therapeutically useful confined sequences, and to construct hybridisation probes for individuals with generic disorders, for recombinantly expressing (I) and confined the effect of the PRO polypeptide (C contragonists) or prevent the effect of the PRO polypeptide (antagonists). (I) and (II) are useful for tissue typing. PRO antibodies are useful for immunohistochemical staining and/or assay of sample confinity purification of PRO from recombinant cell culture or natural control or profess. This sequence represents a human secereted and transmembrane PRO propers or served and transmembrane PRO propers and propers and purposes. Novel secreted and transmembrane polypeptides and polynucleotides encoding them, useful for treating wound healing, tissue growth and muscle generation and regeneration, amyotrophic lateral sclerosis or n J, Paoni NF, Wood WI; Example 48; SEQ ID NO 305; 472pp; English. Napier MA, Pa Williams PM, protein associated primer. Kuo SS, 1 Tumas D, WPI; 2003-596568/56 Kljavin IJ, Stewart TA, neuropathy.

Shelton DL;

Roy MA,

Pan J,

Sequence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;

Gaps .. Query Match 1.9%; Score 15.8; DB 1; Length 24; Best Local Similarity 89.5%; Pred. No. 2.1e+02; Matches 17; Conservative 0; Mismatches 2; Indels

0

ð 셤

ADC68901 standard; DNA; 24 BP 18-DEC-2003 (first entry) ADC6890: RESULT

Human PRO 1072 PCR primer #1.

Human, ss; PCR; secreted protein, transmembrane protein, PRO; cytostatic, ophthalmological, antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth, retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.

Homo sapiens.

US2003064407-A1. 03-APR-2003.

A CONTRACTOR OF THE PROPERTY O

	998; 98US-0084640P. 998; 98US-0084643P. 998; 98US-0085323P.																																							CA C	2000WO-US000	000; 2000WO-US003565.	000; 2000WO-US005004.
	07-MAY-1998; 07-MAY-1998; 13-MAY-1998;	13-MAY-1 13-MAY-1	15-MAY-1	15-MAY-1 15-MAY-1	15-MAY-1	15-MAY-1	18-MAY-1 22-MAY-1	22-MAY-1	22-MAY-1	28-MAY-1	28-MAY-1 26-JUN-1	26-JUN-1	01-JUL-1	30-JUL-1	07-OCT-1	07-OCT-1	1-VOV-30	20-NOV-1	07-DEC-1	22-DEC-1 22-DEC-1	23-DEC-1	05-MAR-1	08-MAR-1 10-MAR-1	10-MAR-1	12-MAR-1 12-MAR-1	29-MAR-1	21-APR-1	28-AFR-1 28-AFR-1	14-MAY-1 14-MAY-1	14-MAY-1	16-JUN-1	23-JUN-1	26-JUL-1	28-JUL-1 25-AUG-1	25-AUG-1	30-NOV-1	02-DEC-1	16-DEC-1	30-DEC-1 30-DEC-1	05-JAN-2	06-JAN-2	11-FEB-2	24-FEB-2
8-1.rng	ਸ਼ ਰ ਸ਼ਬਰ ਸ਼ਬਰ	P. P	7. P. P. R.	# # # # # # # # # # # # # # # # # # #	93.	: K :	F. F.	됐 전	. E. E	ጸ ሚ	K K	PR	E E	PR	4 A	PR	. A.	7. A. G.	E E	¥ K	74 C	7 A	PR PR	В	P. P.	PR	A E	ች ዊ	9 P	R.	X K	F 60	PR	E E	PR	주 보다 보다	<u> </u>	PR.		PR CC	PR	44 A	PR
s c pro s																																											
10:32:03 2004	2001US-00999834,	97US-0062250P. 97US-0064249P.	97US-0066364P. 98US-0077450P.	98US-0077632P.	98US-0077649P.	98US-0078004P.	98US-00040220. 98US-0078886P.	98US-0078910P.	98US-0078939P.	98US-0079656P.	98US-0079663P. 98US-0079664P.	98US-0079689P.	98US-0079786P.	98US-0079920P.	98US-0080105P.	98US-0080107P.	98US-0080194P.	98US-0080327P.	98US-0080333P.	98US-0080334F. 98US-0081049F.	98US-0081070P.	98US-0081195P.	98US-0081203P. 98US-0081229P.	98US-0081817P.	98US-0081819P. 98US-0081838P.	98US-0081952P.	98US-0082568P.	98US-0082569F. 98US-0082700P.	98US-0082704P.	98US-0082804P.	98US-0082796P. 98US-0083336P.	98US-0083322P.	98US-0083495P.	98US-0083496P.	98US-0083500P.	98US-0083554P.	98US-0083558P.	98US-0083742P.	98US-0084366P. 98US-0084414P.	98US-0084441P,	98US-0084600P.	98US-0084627P.	98US-0084639P
ri Jul 30	OCT-2001;	17-OCT-1997; 03-NOV-1997;	NOV-1997	MAR-1998	MAR-1998	MAR-1998	MAR-1998 MAR-1998	MAR-1998	MAR-1998	MAR-1998	MAR-1998 MAR-1998	MAR-1998	MAR-1998	MAR-1998	MAR-1998	MAR-1998	MAR-1998	APR-1998 APR-1998	APR-1998	4PR-1998 4PR-1998	APR-1998	APR-1998	APR-1998 APR-1998	APR-1998	APR-1998 APR-1998	APR-1998	APR-1998	4FR-1998 4FR-1998	APR-1998	APR-1998	APR-1998 APR-1998	APR-1998	APR-1998	APR-1998	APR-1998	APR-1998	APR-1998	APR-1998	(AY-1998) (AY-1998)	1AY-1998	MY-1998	TAY-1998	AY-1998
દ	XX PP XX	ሟ ሺ <u>ር</u>	ማር	PR	P.R.	R H	ਜੂ ਦ ਸ਼ੂੰ ਸ਼ੂੰ	ሟ ዊ ር	A E	ጸ ር አ	ዊ <u>ዋ</u>	A C	72	F 0	PR	g . 6	PR	P. P.	PR.	X K	F	ያ የ	ም አ አ	PR	ቸ ቸ	ም ወ	. K.	ች ቸ	PR 60	7. A.	ቾ ස	E	유	ሟ	1 0 C	T T	F. 6	PR	ሟ చ	ሟ ር	4 K	PR ዋር	PR

```
9805-00774512P

9805-0077612P

9805-0077612P

9805-0077612P

9805-0077791P

9805-0078919P

9805-0078919P

9805-00795264P

9805-0079524P

9805-0079524P

9805-0079524P

9805-0079524P

9805-0079524P

9805-0079524P

9805-0079524P

9805-0079528P

9805-0079528P

9805-0079528P

9805-0079528P

9805-0079528P

9805-0081232P

9805-00812354P

9805-0081255P

9805-0081255P

9805-0081255P

9805-0081255P

9805-0081255P

9805-0081255P

9805-008125P

9805-008125P
 110-MAR-1998;
111-MAR-1998;
111-MAR-1998;
112-MAR-1998;
123-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
27-MAR-1998;
27-MAR-1998;
27-MAR-1998;
27-MAR-1998;
27-MAR-1998;
31-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15 - APR - 1998
22 - APR - 1998
23 - APR - 1998
24 - APR - 1998
25 - APR - 1998
29 - APR - 1998
30 - APR - 1998
31 - APR - 1998
     .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human, ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteopathritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eaton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 15.8; DB 1; Length 2
Pred. No. 2.1e+02;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŗ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Desnoyers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Botstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAGGAAGAGCTCCAGGAA 476
 02-NAR-2000; 2000WO-US005841.
10-MAR-2000; 2000WO-US005319.
21-MAR-2000; 2000WO-US006439.
30-MAR-2000; 2000WO-US006439.
22-MAY-2000; 2000WO-US014941.
22-MAY-2000; 2000WO-US014941.
28-JUL-2000; 2000WO-US014941.
28-JUL-2000; 2000WO-US014941.
28-JUL-2000; 2000WO-US01298.
27-NOV-2000; 2000WO-US01298.
27-NOV-2000; 2000WO-US01298.
27-NOV-2000; 2000WO-US01298.
27-NOV-2000; 2000WO-US01298.
27-NOV-2000; 2000WO-US01298.
27-NOR-2000; 2000WO-US01298.
27-NOR-2000; 2000WO-US01298.
27-NOR-2000; 2000WO-US01298.
27-NOR-2001; 2001WO-US017092.
27-NAR-2001; 2001WO-US017092.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97US-0062250P.
97US-0064249P.
97US-0065311P.
97US-0066364P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO 1072 PCR primer #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001US-00013921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 89.5%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADC62961 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ashkenazi AJ, Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2003068648-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-OCT-1997;
03-NOV-1997;
13-NOV-1997;
21-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADC62961;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
```

201801 21 Km

1.5 N.

```
The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity to a maino acid sequence closen from 4 fully defined sequence identity to a maino acid sequence chosen from 4 fully defined sequences as given in the specification (including PRO lacking its associated signal peptide, a PRO extracellular domain with or without its associated signal peptide. Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO uncleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising PRO flued to a heterologous amino acid sequence, and an anti-PRO polypeptide in a sample suspected of containing PRO493 polypeptide. PRO493 polypeptide is useful for detecting PRO493 polypeptide is useful for detecting PRO493 polypeptide is useful for detecting PRO455 PRO700 or PRO739 polypeptide is useful for linking a profess pelvin and producine process per process process death of the cell. PRO337 polypeptide. The bioactive molecule is the toxin, radiolabel, or an antibody. The bloactive molecule cell. PRO337 polypeptide is useful for linking a molecule is the cell. PRO337 polypeptide is useful for linking a molecule is the cell. PRO337 polypeptide is useful for linking a molecule is the cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human, ss; PCR; secreted protein, transmembrane protein, PRO, cytostatic, ophthalmological, antiarthritic, osteopathic; antirheumatic; vulnerary; auditory; tumour growth, retinal disorder; sports-related joint problem, articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                       New isolated secreted and transmembrane PRO polypeptides, useful in the preparation of a medicament for treating a condition responsive to the polypeptide, and as therapeutic agents e.g. vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.9%; Score 15.8; DB 1; Length 24; 89.5%; Pred. No. 2.1e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                       Example 48; SEQ ID NO 305; 467pp; English.
Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             458 CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGGAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0062250P.
97US-0064249P.
97US-0066311P.
98US-0077450P.
98US-0077641P.
98US-0077641P.
98US-0077641P.
98US-0077641P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADC68026 standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO 1072 PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-OCT-2001; 2001US-00978423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 89.5
Matches 17; Conservative
    Tumas D,
                                                                                        WPI; 2003-695924/66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003069178-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
12-MAR-1998;
20-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-NOV-1997;
    Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADC68026;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC68026
    TXEXETTEXEXEXECTORS OF COLUMN AND A STREET X EX X COLUMN AND COLUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HERE REPRESENTED TO THE PROPERTY OF THE PROPER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Kljavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton DL;
98US - 0085689P - 98US - 0085704P - 98US - 0085704P - 98US - 0086704P - 98US - 0086714P - 98US - 0086414P - 98US - 0086410P - 98US - 0086410P - 98US - 0087098P - 98US - 0087098P - 98US - 0091059P - 98US - 0091014P - 98US - 0091038P - 98US - 0091038P - 98US - 0091038P - 98US - 0091038P - 98US - 010934P - 98US - 010934P - 98US - 0113296P - 99US - 01132296P - 99US - 009US - 009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         990S-0130232P.
990S-0131022P.
99US-0131445P.
99US-0134287P.
99WO-US010733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US005190.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0123957P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0139557P
99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US031274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US000277
2000WO-US000376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US007532
2000WO-US008439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US015264
2000WO-US020710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US028565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US003565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US005004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US005841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US032678
2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00918585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JAN-2000;
06-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-FEB-2000;
18-FEB-2000;
24-FEB-2000;
02-MAR-2000;
10-MAR-2000;
21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAY-2000;
02-JUN-2000;
28-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-AUG-2000;
01-DEC-2000;
20-DEC-2000;
28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-MAR-2001;
25-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-JUL-2001;
                                                                                                                                 -MAY-1998;
-MAY-1998;
-MAY-1998;
-MAY-1998;
-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                     28-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-MAR-1999
```

21-APR-15 26-APR-19

-JAN-1 -MAR-1

20-NOV-1 ·DEC-1

20-NOV-

28-MAY-1 J-NDS

MAY-1

ö

Gaps .,

```
98US - 0078910P

98US - 0078936P

98US - 0079294P

98US - 0079294P

98US - 0079264P

98US - 0079664P

98US - 0079664P

98US - 0079788P

98US - 0079788P

98US - 0079788P

98US - 0080134P

98US - 0080134P

98US - 0080134P

98US - 0081197P

98US - 008129P

98US - 008129P

98US - 008129P

98US - 008138P

98US - 008138P

98US - 008138P

98US - 008139P

98US - 008139P

98US - 008139P

98US - 008144P

98US - 008139P

98US - 008449P

98US - 008139P

98US - 008139P

98US - 008139P

98US - 008449P

98US - 008139P

98US - 008139P

98US - 008459P

98US - 008469P

98US - 008469P

98US - 008469P

98US - 008459P

98US - 00858P

98US - 00858P
20 - MAR - 1998

20 - MAR - 1998

25 - MAR - 1998

26 - MAR - 1998

27 - MAR - 1998

30 - MAR - 1998

31 - MAR - 1998

32 - MAR - 1998

33 - MAR - 1998

34 - MAR - 1998

35 - MAR - 1998

36 - APR - 1998

37 - MAR - 1998

38 - MAR - 1998

39 - APR - 1998

30 - APR - 1998

31 - APR - 1998

32 - APR - 1998

32 - APR - 1998

33 - APR - 1998

34 - APR - 1998

35 - APR - 1998

36 - APR - 1998

37 - APR - 1998

38 - APR - 1998

39 - APR - 1998

30 - APR - 1998

30 - APR - 1998

31 - APR - 1998

32 - APR - 1998

33 - APR - 1998

34 - APR - 1998

36 - APR - 1998

36 - APR - 1998

37 - APR - 1998

38 - APR - 1998

39 - APR - 1998

30 - APR - 1998

31 - APR - 1998

32 - APR - 1998

33 - APR - 1998

34 - APR - 1998

35 - APR - 1998

36 - APR - 1998

37 - MAY - 1998

38 - APR - 1998

38 - APR - 1998

39 - APR - 1998

30 - APR - 1998

31 - MAY - 1998

32 - MAY - 1998

33 - MAY - 1998

34 - MAY - 1998

35 - MAY - 1998

36 - MAY - 1998

37 - MAY - 1998

38 - MAY - 1998

39 - MAY - 1998

30 - MAY - 1998

31 - MAY - 1998

31 - MAY - 1998

32 - MAY - 1998

33 - MAY - 1998

34 - MAY - 1998

35 - MAY - 1998

36 - MAY - 1998

37 - MAY - 1998

38 - MAY - 1998

38 - MAY - 1998

39 - MAY - 1998

30 - MAY - 1998

30 - MAY - 1998

31 - MAY - 1998

31 - MAY - 1998

32 - MAY - 1998

33 - MAY - 1998

34 - MAY - 1998

35 - MAY - 1998

36 - MAY - 1998

36 - MAY - 1998

37 - MAY - 1998

38 - MAY - 1998

38 - MAY - 1998

39 - MAY - 1998

30 - MAY - 1998

30 - MAY - 1998

31 - MAY - 1998

31 - M
```

22-MAY-1998; 98US-0087098P.
28-MAY-1998; 98US-0087098P.
28-MAY-1998; 98US-0087008P.
28-MAY-1998; 98US-0087008P.
26-JUN-1998; 98US-0091359P.
30-JUL-1998; 98US-0091359P.
31-JUL-1998; 98US-0091359P.
31-JUL-1998; 98US-0091359P.
32-JUN-1998; 98US-010948P.
32-JUN-1998; 98US-010948P.
32-JUN-1998; 98US-010334P.
32-JUN-1999; 99US-0113296P.
33-JUN-1999; 99US-0113296P.
34-MAY-1999; 99US-0113296P.
35-JUN-1999; 99US-011323P.
36-JUN-1999; 99US-011323P.
36-JUN-2000; 2000WO-US00137P.
36-JUN-2000; 2000WO-US00137P.
36-JUN-2000; 2000WO-US0137P.
36-JUN-2000; 2000WO-US0132P.
36-JUN-2000; 2000WO-US0132P.
36-JUN-2000; 2000WO-US0132P.
36-JUN-2000; 2000WO-US0132P.
36-JUN-2000; 2000WO-US0132P.
36-JUN-2000; 2000WO-US0132P.
36-JUN-2000; 2000WO-US019P.
36-JUN-2000; 2000WO-US0132P.
36-JUN-2000; 2000WO-US013P. (GETH) GENENTECH INC.

DL; Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
Ferrara N, Filvarcíf E, Fong S, Gao W, Gerber H, Gerritsen ME;
Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Kljavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton
Stewart TA, Tumas D, Williams PM, Wood WI;

WPI; 2003-657582/62

なる から との はなる

- 14, 4 15, 6

```
27 WAR-1998;
30-MAR-1998;
31-MAR-1998;
31-MAR-1998;
31-MAR-1998;
31-MAR-1998;
01-APR-1998;
01-APR-1998;
01-APR-1998;
01-APR-1998;
08-APR-1998;
08-APR-1998;
08-APR-1998;
                                                                                                                                                                                                                                                      09-APR-1098;

15-APR-1098;

15-APR-1098;

15-APR-1098;

15-APR-1098;

15-APR-1098;

21-APR-1098;

21-APR-1098;

22-APR-1098;

22-APR-1098;

22-APR-1098;

23-APR-1098;

23-APR-1098;

23-APR-1098;

24-APR-1098;

25-APR-1098;

26-APR-1098;

27-APR-1098;

27-APR-1098;

28-APR-1098;

29-APR-1098;

29-APR-1098;

29-APR-1098;

29-APR-1098;

29-APR-1098;

29-APR-1098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .5-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-APR-1998
29-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-APR-1
29-APR-1
schu568-1.rng
                                                             The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity on amino acid sequence chosen from 94 fully defined sequences as given in the specification (including PRO lacking its associated signal peptide. Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acids encoding the PRO proteins comprising the vector and producing PRO, a chimaeric molecule comprising PRO included to a heterologous amino acid sequence, and an anti-PRO antibody. PRO337 polypeptide is useful for derecting a PRO4993 polypeptide. Similarly, PRO4993 polypeptide is useful for detecting PRO337 polypeptide is useful for detecting PRO337 polypeptide is useful for detecting pRO4993 polypeptide. PRO325, PRO700 or PRO739 polypeptide is useful for detecting PRO337 PRO1859 PRO1859 polypeptide is useful for detecting
                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human, ss, PCR, secreted protein, transmembrane protein, PRO, cytostatic, ophthalmological, antiarthritic, osteopathic, antirheumatic, vulnerary, auditory, tumour growth, retinal disorder; sports-related joint problem, articular cartilage defects, osteoarthritis, rheumatoid arthritis, wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                        Novel secreted and transmembrane polypeptides, designated PRO polypeptides, and polynucleotides encoding them useful for treating kidney diseases, bone, cartilage and retinal disorders.
                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                Query Match 1.9%; Score 15.8; DB 1; Length 24; Best Local Similarity 89.5%; Pred. No. 2.1e+02; Matches 17; Conservative 0; Mismatches 2; Indels
                                                                                                                     Example 48; SEQ ID NO 305; 468pp; English.
                                                                                                                                                                                                                                                                                                                                                                 458 CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                       1 ccassaarscrccassaa 19
   Fri Jul 30 10:32:03 2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97US-0062250P
97US-0064249P
97US-0063144P
98US-0077450P
98US-0077641P
98US-0077641P
98US-0077641P
98US-0077641P
98US-0077641P
98US-007761P
98US-0078910P
98US-0078910P
98US-0078930P
98US-0078930P
98US-0078930P
98US-0078930P
                                                                                                                                                                                                                                                                                                                                                                                                                                                ADC41346 standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human PRO 1072 PCR primer #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-OCT-2001; 2001US-00013929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2003072745-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
12-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-NOV-1997;
13-NOV-1997;
21-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-MAR-1998
27-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-0CT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADC41346;
                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 62
                                                                                                                                                                                                                                                                                                                                                                                                                                      ADC41346
                                                                8
```

```
9805-0079728P

9805-0079728P

9805-0079728P

9805-0080105P

9805-0080107P

9805-00801333P

9805-00801333P

9805-00801333P

9805-00801333P

9805-0081155P

9805-0081229P

9805-0081229P

9805-0081229P

9805-0081229P

9805-0081229P

9805-0081229P

9805-0081333P

9805-0081333P

9805-0081495P

9805-0081333P

9805-0081333P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0087106P.
98US-0087208P.
98US-0090863P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0086414P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38US-0086486P
```

·.

```
The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity on amino acid sequence chosen from 94 fully defined sequences as given in the specification (including PRO lacking its associated signal peptide, a PRO extracellular domain with or without its associated signal peptide. Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising antibody. PRO337 polypeptide is useful for detecting a PRO4993 polypeptide is useful for detecting a PRO4993 similarly, PRO4993 polypeptide is useful for detecting PRO337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      vulnerary; virucide; neuroprotective; cytostatic; gene therapy; tumour cell proliferation inhibitor; secereted and transmembrane protein; PRO; viral infection; wound healing; tissue growth; muscle generation; muscle regeneration; amyotrophic lateral sclerosis; neuropathy; AlDS-associated neuropathy; diabetic peripheral neuropathy; chromosome identification; antagonist; tissue typing; immunohistochemical staining; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                         1.9%; Score 15.8; DB 1; Length 24;
89.5%; Pred. No. 2.1e+02;
vative 0; Mismatches 2; Indels
  Example 48; SEQ ID NO 305; 466pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                 458 CCAGGAAGACTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGGAAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97US-0064249P
97US-0065411P
97US-0065411P
98US-0077450P
98US-0077641P
98US-0077641P
98US-0077641P
98US-0077649P
98US-0077649P
98US-0077649P
98US-0077649P
98US-0077649P
98US-0077649P
98US-0077649P
98US-0077649P
98US-0077649P
98US-0077669P
98US-0079664P
98US-0079664P
98US-0079664P
98US-0079664P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADC67401 standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PRO 1072 PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00016177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 89.5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003073131-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10 MAR.1998;

11 MAR.1998;

11 MAR.1998;

12 MAR.1998;

12 MAR.1998;

20 MAR.1998;

20 MAR.1998;

20 MAR.1998;

25 MAR.1998;

25 MAR.1998;

25 MAR.1998;

27 MAR.1998;

27 MAR.1998;

27 MAR.1998;

27 MAR.1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC67401;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADC67401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
    ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel isolated secreted and transmembrane PRO polypeptides, useful in the preparation of a medicament for treating a condition responsive to the polypeptide, and as therapeutic agents e.g. vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ashkenazi A, Baker KP, Botstein D, Desnoyers L, Eaton DL;
Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Kljavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton DL;
Stewart TA, Tumas D, Williams PM, Wood WI;
26-JUN-1998; 98US-0091010P.
30-JUL-1998; 98US-0091359P.
30-JUL-1998; 98US-0091359P.
11-SEP-1998; 98US-0100038P.
22-DEC-1998; 98US-0100038P.
22-DEC-1998; 98US-0100038P.
22-DEC-1998; 98US-01032141.
23-DEC-1998; 98US-010321P.
23-DEC-1998; 99US-013256P.
23-DEC-1999; 99US-013257P.
23-DEC-1999; 99US-0131022P.
24-AAY-1999; 99US-0131022P.
25-APR-1999; 99US-0131022P.
26-APR-1999; 99US-0131022P.
26-APR-2000; 2000WO-US003376.
11-FEB-2000; 2000WO-US0033124.
26-APR-2000; 2000WO-US0033124.
26-APR-2000; 2000WO-US0033128.
26-APR-2000; 2000WO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-743806/70.
```

TO SECURE

na Ma

Fri Jul 30 10:32:03 2004

31-MAR-1998,
31-MAR-1998,
31-MAR-1998,
01-APR-1998,
01-APR-1998,
01-APR-1998,
08-APR-1998,
08-APR-1998,
08-APR-1998,
08-APR-1998,
15-APR-1998,
15-AP

```
Novel isolated secreted and transmembrane PRO polypeptides, useful in t
preparation of a medicament for treating a condition responsive to the
polypeptide, and as therapeutic agents e.g. vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
Goddard A, Godowski PJ, Grimaldi UC, Gurney AL, Hillan KJ;
Klyavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton |
Stewart TA, Tumas D, Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 48; SEQ ID NO 305; 464pp; English
20-NOV-1998; 980S-0109304P.
20-NOV-1998; 980S-013286FS-
22-DEC-1998; 980S-011328FP.
23-DEC-1998; 980S-011328FP.
23-DEC-1999; 990S-0113228FP.
21-MAR-1999; 990S-0123957P.
21-APR-1999; 990S-0123957P.
22-APR-1999; 990S-013232P.
23-APR-1999; 990S-013022P.
24-APR-1999; 990S-013022P.
25-APR-1999; 990S-013022P.
26-APR-1999; 990S-013022P.
26-APR-2009; 990S-0145680P.
26-APR-2009; 990S-01456819.
26-APR-2009; 990S-01456819.
26-APR-2000; 2000WO-US002319.
26-APR-2000; 2000WO-US002319.
26-APR-2000; 2000WO-US002319.
26-APR-2000; 2000WO-US0023128.
26-APR-2000; 2000WO-US0023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-743810/70.
```

98US-0080107P 98US-0080107P 98US-0080132P 98US-0080332P 98US-0080333P 98US-0080333P 98US-0080333P 98US-0081033P 98US-0081033P 98US-0081033P 98US-008103P 98US-008132P 98US-008132P 98US-008132P 98US-008132P 98US-008132P 98US-008132P 98US-008132P 98US-0081319P 98US-0081319P 98US-0081313P 98US-0081313P

29-APR-1998 29-APR-1998

05-MAY-1998; 06-MAY-1998; 06-MAY-1998;

07-MAY-1998; 07-MAY-1998; 07-MAY-1998;

13-MAY-1998; 13-MAY-1998; 15-MAY-1998; 15-MAY-1998; 15-MAY-1998; 15-MAY-1998;

15-MAY-1998 18-MAY-1998

22-MAY-1998 22-MAY-1998

29-APR-1998; 29-APR-1998; 29-APR-1998; 29-APR-1998; 29-APR-1998; 29-APR-1998;

The invention describes an isolated secereted and transmembrane PRO polypeptide (I). PRO polypeptide such as PRO213, PRO700, PRO320 or PRO615 is useful in biotechnological and medical research, as well as in various

the

```
9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9805.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

9806.

98
 08-APR-1998

09-APR-1998

09-APR-1998

09-APR-19998

15-APR-19998

15-APR-19998

15-APR-19998

15-APR-19998

15-APR-19998

22-APR-19998

22-APR-19998

22-APR-19998

23-APR-19998

24-APR-19998

25-APR-19998

25-APR-19998

25-APR-19998

25-APR-19998

25-APR-19998

25-APR-19998

26-UUN-19998

26-UNOV-19998

26-UNOV-19998

26-UNOV-19998
  ö
                                                                                                                                                                                                                                                                                                                                                                       Human, ss, PCR; secreted protein, transmembrane protein, PRO; cytostatic, ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth, retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                   or
industrial applications. PRO polypeptide such as PRO300, PRO866, PRO703, PRO3181, PRO5182, PRO3181, PRO5182, PRO5181, PRO5182, PRO5181, PRO5182, PRO5181, PRO5182, PRO5181, PRO5182, PRO5181 susful for therapeutic purposes. PRO5183 is useful therapeutically in vivo for lessening the effects of viral infection. PRO500 is useful for the treatment of wound healing, tissue growth and muscle generation and regeneration. PRO5137 is useful for treating amyotrophic lateral sclerosis, neuropathy, AIDS-associated neuropathy or
                                                                                                                                       Gaps
                                                                                                                                       .
0
                                                                                                        Query Match
1.9%; Score 15.8; DB 1; Length 24;
Best Local Similarity 89.5%; Pred. No. 2.1e+02;
Matches 17; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                      CCAGGAAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US - 0064249P
97US - 0064249P
97US - 0065314P
98US - 00774641P
98US - 0077641P
98US - 0077641P
98US - 0077641P
98US - 0077641P
98US - 0077691P
98US - 00778910P
98US - 0077891P
98US - 0077891P
98US - 0079664P
                                                                                                                                                                                                                                                              BP.
                                                                                                                                                                                                                                                                                                                                                Human PRO 1072 PCR primer #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00978193
                                                                                                                                                                                                                                                              24
                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003073624-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-OCT-1997;
03-NOV-1997;
21-NOV-1997;
21-NOV-1997;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
12-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
20-MAR-1998;
27-MAR-1998;
27-MAR-1998;
27-MAR-1998;
31-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                    18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-APR-2003
                                                                                                                                                                 458
                                                                                                                                                                                                                                                                                          ADC62337;
                                                                                                                                                                                                                                                              ADC62337
                                                                                                                                                                                                                                                   ADC62337
                                                                                                                                                                                                                                    RESULT
  88888888
                                                                                                                                                                                    셤
```

and the second s

62

ö

Gaps

.. 0

schu568-1.rng

```
99WO-US000106
99WO-US00505028
99WS-00264465
99WS-00265038
99WS-01287139
99US-01287739
99US-01287739
99US-013878
99US-0131822P
99US-01318287P
99US-013183557P
99WS-0142680P
99US-0142680P
99US-0142680P
99US-0142680P
99US-0142680P
99US-0142680P
99US-0145698P
99US-0145698P
99US-0145698P
99US-0145698P
                                                                                                                                                                                                                                                                                                                                                                                                                        2000MO-US034956
2001MG-US034956
2001MG-00816920
2001MG-00816920
2001MG-00854208
2001MG-00854208
2001MG-00854208
2001MG-00874503
2001MG-00874503
2001MG-00874503
2001MG-00802636
2001MG-US019692
2001MG-US019692
2001MG-US019692
                                                                                                                                                                                                                                                                                                                                                   2000WO-US014042.
2000WO-US014941.
2000WO-US015264.
                                                                                                                                                                                                                                                                                                                                                                                                 2000US-00723749.
2000WO-US032678.
2000US-00747259.
                                                                                                                                                                                                                               99WO-US031243.
99WO-US031243.
99WO-US031274.
                                                                                                                                                                                                                                                       2000WO-US000219.
2000WO-US000277.
2000WO-US000376.
                                                                                                                                                                                                                                                                              2000US-0180165P.
2000WO-US003565.
2000WO-US004341.
                                                                                                                                                                                                                                                                                                                            2000WO-US007532
2000WO-US008439
2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                           2000WO-US020710
2000WO-US023328
2000US-00709238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001WO-US021735
2001US-00918585
                                                                                                                                                                                                                                                                                                                      2000WO-US006319
                                                                                                                                                                                                                                                                                                                                                                                                                        20-DEC-2000;
28-FBB-2001;
22-MAR-2001;
22-MAR-2001;
22-MAR-2001;
10-MAY-2001;
10-MAY-2001;
25-MAY-2001;
20-JUN-2001;
01-JUN-2001;
                                                                                                                                                                       25-AUG-1999;
25-AUG-1999;
29-OCT-1999;
02-DEC-1999;
02-DEC-1999;
16-DEC-1999;
30-DEC-1999;
05-JAN-2000;
06-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                    11-FEB-2000;
18-FEB-2000;
24-FEB-2000;
02-MAR-2000;
10-MAR-2000;
                                                                                                                                                                                                                                                                                                                           21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                  02-JJN-2000;
28-JJL-2000;
24-AUG-2000;
08-NOV-2000;
27-NOV-2000;
01-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-JUN-2001;
19-JUN-2001;
20-JUN-2001;
29-JUN-2001;
                    08-MAR-1999;
10-MAR-1999;
10-MAR-1999;
12-MAR-1999;
12-MAR-1999;
12-APR-1999;
                                                                            21-APR-1999;
26-APR-1999;
28-APR-1999;
14-MAY-1999;
14-MAY-1999;
                                                                                                                           02-JUN-1999;
16-JUN-1999;
23-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-JUL-2001;
```

(GETH) GENENTECH INC.

Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer. Score 15.8; DB 1; Length 24; Pred. No. 2.1e+02; 0; Mismatches 2; Indels 458 CCAGGAAGAGCTCCAGGAA 476 ccaddaardcrccaddaa 19 9705-0064249P 9705-0064341P 9705-0066314P 9805-0077449P 9805-0077641P 9805-0077641P 9805-0077641P 9805-0077641P 9805-0077641P 9805-0077641P 9805-0077641P 9805-0077641P 9805-0077664P 9805-0079668P 9805-0079668P 9805-0079668P 9805-0079668P 9805-0079668P 9805-0079668P 9805-007968P 9805-007968P 9805-007968P 9805-007968P 9805-007968P 9805-007968P 9805-0080107P 9805-0080127P 9805-0080133P 9805-0080127P 9805-0080127P ADC41970 standard; DNA; 24 BP Query Match
Best Local Similarity 89.5%;
Matches 17; Conservative 0 Human PRO 1072 PCR primer #1. 16-OCT-2001; 2001US-00978643 18-DEC-2003 (first entry) US2003104998-A1. 31-MAR-1998; 01-APR-1998; 01-APR-1998; 01-APR-1998; 01-APR-1998; 08-APR-1998; 3-MAR-1998; 7-MAR-1998; 0-MAR-1998; 27-MAR-1998; 30-MAR-1998; 30-MAR-1998; 31-MAR-1998; 31-MAR-1998; 31-MAR-1998; Homo sapiens. 09-APR-1998; 09-APR-1998; 15-APR-1998; 25-MAR-1998; 26-MAR-1998; 05-JUN-2003 09-APR-1998 Н ADC41970; RESULT 65 ADC41970 ઠે 셤

```
98015 - 0081813P - 98015 - 00818318P - 98015 - 00818318P - 98015 - 0081952P - 98015 - 0081952P - 98015 - 0081952P - 98015 - 008256BP - 98015 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 008270 - 0082
15 - APR - 1998 |
22 - APR - 1998 |
22 - APR - 1998 |
23 - APR - 1998 |
24 - APR - 1998 |
25 - APR - 1998 |
26 - APR - 1998 |
27 - APR - 1998 |
28 - APR - 1998 |
29 - APR - 1998 |
20 - APR - 1998 |
21 - APR - 1998 |
22 - APR - 1998 |
23 - APR - 1998 |
24 - APR - 1998 |
25 - APR - 1998 |
26 - APR - 1998 |
27 - APR - 1998 |
28 - APR - 1998 |
29 - APR - 1998 |
21 - APR - 1998 |
22 - APR - 1998 |
23 - APR - 1998 |
24 - APR - 1998 |
25 - APR - 1998 |
26 - APR - 1998 |
27 - APR - 1998 |
28 - APR - 1998 |
28 - APR - 1998 |
29 - APR - 1998 |
20 - APR - 1998 |
21 - APR - 1998 |
22 - APR - 1998 |
23 - APR - 1998 |
24 - APR - 1998 |
25 - APR - 1998 |
26 - APR - 1998 |
27 - APR - 1998 |
28 - APR - 1998 |
29 - APR - 1998 |
20 - APR - 1998 |
20 - APR - 1998 |
21 - APR - 1998 |
22 - APR - 1998 |
23 - APR - 1998 |
24 - APR - 1998 |
25 - APR - 1998 |
26 - APR - 1998 |
27 - APR - 1998 |
28 - APR - 1998 |
29 - APR - 1998 |
20 - APR - 1998 |
20 - APR - 1998 |
21 - APR - 1998 |
22 - APR - 1998 |
23 - APR - 1998 |
24 - APR - 1998 |
25 - APR - 1998 |
26 - APR - 1998 |
27 - APR - 1998 |
28 - APR - 1998 |
29 - APR - 1998 |
20 - APR - 1998 |
21 - APR - 1998 |
22 - APR - 1998 |
23 - APR - 1998 |
24 - APR - 1998 |
25 - APR - 1998 |
26 - APR - 1998 |
27 - APR - 1998 |
28 - APR - 1998 |
29 - APR - 1998 |
20 - APR - 1998 |
20 - APR - 1998 |
21 - APR - 1998 |
22 - APR - 1998 |
23 - APR - 1998 |
24 - APR - 1998 |
25 - APR - 1998 |
26 - APR - 1998 |
27 - APR - 1998 |
28 - APR - 1998 |
29 - APR - 1998 |
20 - APR - 1998 |
21 - APR - 1998 |
22 - APR - 1998 |
23 - APR - 1998 |
24 - APR - 1998 |
25 - APR - 1998 |
26 - APR - 1998 |
27 - APR - 1998 |
28 - APR - 1998 |
29 - APR - 1998 |
20 - APR - 1998 |
20 - APR - 1
```

12-MAR-1999; 99US-010267213.

29-MAR-1999; 99US-0123957P.

29-MAR-1999; 99US-0123957P.

26-APR-1999; 99US-0130232P.

26-APR-1999; 99US-01310232P.

26-APR-1999; 99US-0131023P.

26-APR-1999; 99US-0131023P.

26-APR-1999; 99US-013123P.

26-AUL-1999; 99US-013123P.

25-AUG-1999; 99US-0131243.

26-UN-1999; 99US-0131243.

26-UN-1999; 99US-0131243.

26-UN-1999; 99US-0131243.

27-UN-2000; 2000WO-US01256F.

28-DEC-1999; 99WO-US013274.

28-UN-2000; 2000WO-US0131243.

29-WAY-2000; 2000WO-US013441.

24-AUG-2000; 2000WO-US013441.

24-AUG-2000; 2000WO-US01343.

24-AUG-2000; 2000WO-US01343.

25-AUG-2000; 2000WO-US01343.

26-UN-2000; 2000WO-US01343.

27-WAY-2000; 2000WO-US01343.

28-PEB-2001; 2000WO-US01343.

29-WAY-2001; 2000WO-US01343.

20-DEC-2000; 2000WO-US01343.

20-DEC-2000; 2000WO-US01343.

20-DEC-2000; 2000WO-US01343.

20-DEC-2000; 2000WO-US01343.

21-MAR-2001; 2000WO-US01343.

22-MAR-2001; 2000WO-US01343.

23-MAR-2001; 2000WO-US01343.

24-UN-2001; 2000WO-US01343.

25-MAR-2001; 2000WO-US01343.

26-UN-2001; 2000WO-US01343.

27-MAR-2001; 2000WO-US01343.

28-MAR-2001; 2000WO-US01343.

29-UN-2001; 2000WO-US01343.

20-UN-2001; 2000WO-US01343.

20-UN-2001; 2000WO-US01343.

20-UN-2001; 2000WO-US01463.

20-UN-2001; (GETH) GENENTECH INC

CCAGGAAGAGCTCCAGGAA 476 458

.; 0

Gaps

; 0

Indels Length

DB 1;

Score 15.8; DB 1; Pred. No. 2.1e+02; 0; Mismatches 2;

Query Match
Best Local Similarity 89.5%;
Matches 17; Conservative C

- 42.1 - 1794. April 1

```
9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

9805

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-00184216.
98US-00187368.
98US-0109304P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US024855.
98US-00202054.
98US-00218517.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0113296P.
98US-0113621P.
99WO-US000106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-00254465.
99WO-US005028.
99US-00265686.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US005190.
99US-0123957P.
99US-0126773P.
99US-0136232P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0131022P.
99US-0131445P.
99US-00311832.
22-APR-1998;
22-APR 1998;
27-APR 1998;
27-APR 1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
29-APR-1998;
60-APR-1998;
60-APR-1998;
                                                                                                                                                                                                                                                                                     06-MAY-1998;
07-MAY-1998;
07-MAY-1998;
07-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-NOV-1998;
06-NOV-1998;
20-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1-SEP-1998;
                                                                                                                                                                                                                      Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth, retinal disorder; sports-related joint problem; articular cartilage defects; osteopathritis; rheumatoid arthritis; wound healing; hearing loss; primer.
     CCAGGAAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                            97US-0064249P
97US-0066341P
97US-0066341P
98US-00774612P
98US-00776412P
98US-00776412P
98US-00776412P
98US-00776412P
98US-00776412P
98US-00776412P
98US-0077639P
98US-0078936P
98US-0078936P
98US-0078936P
98US-007963P
98US-007963P
98US-007963P
98US-007964P
98US-007964P
98US-007964P
98US-007964P
98US-00801194P
98US-00801194P
98US-00801195P
                                                                                     ADE49339 standard; DNA; 24 BP
                                                                                                                                                                                      Human PRO 1072 PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                               28-JAN-2002; 2002US-00978187
                                                                                                                                                          29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                             US2003096744-A1
                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17 MAR. 1998
20 MAR. 1998
20 MAR. 1998
20 MAR. 1998
25 MAR. 1998
25 MAR. 1998
27 MAR. 1998
27 MAR. 1998
30 MAR. 1998
31 MAR. 1998
                                                                                                                                                                                                                                                                                                                                                                                               22-MAY-2003
                                                                                                                        ADE49339;
                                                                         ADE49339
                                                       RESULT
     g
```

```
Human, ss, PCR, secreted protein, transmembrane protein, PRO, cytostatic, ophthalmological, antiarthritic, osteopathic; antirheumatic, vulnerary, auditory, tumour growth, retinal disorder; sports-related joint problem, articular cartilage defects, osteoarthritis, rheumatoid arthritis, wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                               Botstein D, Desnoyers L, Eaton DL;
Fong S, Gao W, Gerber H, Gerritsen ME;
Grimaldi JC, Gurney AL, Hillan KJ;
ier MA, Panou J, Paoni NF, Roy MA, Shelton DL;
lliams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                        New genes, and its encoded secreted and transmembrane polypeptides, useful for treating e.g. lung or breast tumors, osteoarthritis, rheumatoid arthritis, obesity, diabetes, hyperinsulinemia, hypoinsulinemia or wounds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 48; SEQ ID NO 305; 462pp; English
                                                                                                                                                                                                                                                                                                                                                                                  Napier MA, Par
Williams PM,
                                                                                                                                                                                                                                        15-MAY-1998; 98US-0085689P.
08-MAR-1999; 99WG-US005028.
28-APR-1999; 99US-0131445P.
25-AUG-1999; 99US-00380138.
18-FEB-2000; 2000WG-US004341.
30-UUL-2001; 2001US-00918585.
                                                  Human PRO 1072 PCR primer #1.
                                                                                                                                                                                                                  18-OCT-2001; 2001US-00145088
                                                                                                                                                                                                                                                                                                                                               Ashkenazi AJ, Baker KP, B
Ferrara N, Filvaroff E, F
Goddard A, Godowski PJ,
Kljavin IJ, Kuo SS, Napie
Stewart TA, Tumas D, Will
                          (first entry)
                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-875641/81.
                                                                                                                                                                     US2003203434-A1.
                                                                                                                                               Homo sapiens.
                          29-JAN-2004
                                                                                                                                                                                            30-OCT-2003.
     ADE35393;
     Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               L, Eaton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Desnoyers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 15.8; DB 1;
Pred. No. 2.1e+02;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Botstein D,
14-MAY-1999; 99US-0134287P

14-MAY-1999; 99WG-013010733.

15-JUN-1999; 99WG-0139557P

23-JUN-1999; 99US-0139557P

23-JUN-1999; 99US-0145608P

26-JUL-1999; 99US-0145608P

26-JUL-1999; 99US-0145608P

25-AUG-1999; 99US-0146222P

25-AUG-1999; 99US-0146222P

25-AUG-1999; 99US-0146222P

25-AUG-1999; 99US-0146222P

25-AUG-1999; 99US-01380134.

25-AUG-1999; 99US-01380137

25-AUG-1999; 99US-01480139

21-AUR-2000; 2000WC-US0013655

21-AUR-2000; 2000WC-US0013267

22-MAR-2001; 2000WC-US013267

22-MAR-2001; 2000WC-US013267

22-MAR-2001; 2000WC-US013267

23-MAR-2001; 2001WC-US013267

25-MAR-2001; 2001WC-US013267

26-TUN-2001; 2001WC-US013658

26-TUN-2001; 2001WC-US013658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.9%;
Local Similarity 89.5%;
Les 17; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ashkenazi AJ, Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
```

The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity con an amino acid sequence chosen from 94 fully defined sequences as given in the specification (including PRO lacking its associated signal peptide, a PRO extracellular domain with or without its associated signal comprising included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising antibody. PRO337 polypeptide is useful for detecting a PRO4993 polypeptide is useful for detecting a polypeptide. PRO725, PRO700 or PRO739, PRO4093 polypeptide is useful for linking a coll-cule for the toxin, radiolabel, or an antibody. The bioactive molecule to a cell expressing PRO337 polypeptide; BRO525, PRO700 or PRO739, PRO4933 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO4933 polypeptide; RRO725, PRO700 or PRO739 polypeptide, and PRO1559 polypeptide is useful for linking a cuseful for linking a bioactive molecule to a cell expressing PRO4933 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO4933 polypeptide or anti-PRO337 polypeptide is useful for modulating the cell expressing PRO4933 polypeptide is useful for modulating is useful for modulating is useful for modulating the cell expressing PRO4933 polypeptide or anti-PRO39 polypeptide or anti-PRO39 polypeptide or modulating the biological activity of the cell expressing PRO4933 polypeptide or modulating the biological activity of the cell expressing PRO4933 polypeptide.

ö

Gaps

.. 0

Indels

. 7

CCAGGAAGAGCTCCAGGAA 476 CCAGGAATGCTCCAGGAA 19

458

셤 ð

Best Loc Matches

BP.

ADE35393 ID ADE35393 standard; DNA; 24 XX

RESULT 67

The second secon

ö

```
polypeptide; and PRO1559 polypeptide or anti-PRO725, anti-PRO700 or anti-
PRO739 polypeptide is useful for modulating the biological activity of
the cell expressing PRO725, PRO700 or PRO739 polypeptide. The
polypeptides are useful for inhibiting tumour growth, retinal disorders,
sports-related joint problems, articular cartilage defects,
osteoarthritis or rheumatoid arthritis, wound healing and hearing loss in
mammals. The present sequence is a PCR primer used to isolate nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; ss, PCR; secreted protein; transmembrane protein; PRO; cytostatic; obthchalmological, antiatribritic; osteopablib; antirhomatic; valinerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       J. Baker KP, Botstein D, Desnoyers L, Eaton DL;
Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Kuo SS, Napier MA, Pan J, Paoni NP, Roy MA, Shelton DL;
Tumas D, Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New genes, and its encoded secreted and transmembrane polypeptides, useful for treating e.g. lung or breast tumors, osteoarthritis, rheumatoid arthritis, obesity, diabetes, hyperinsulinemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
                                                                                                                                                                                                                                                                                                                                                            1.9%; Score 15.8; DB 1; Length 24; 89.5%; Pred. No. 2.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                  Sequence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     wound healing; hearing loss; primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  458 CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CCAGGAAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADE16507 standard; DNA; 24 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0083742P.
99WO-US005028.
99US-0141037P.
99US-00380138.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human PRO 1072 PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-OCT-2001; 2001US-00145092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US004341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-00918585
                                                                                                                                                                                                                                        acid encoding a PRO protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-875642/81.
                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US2003203435-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ashkenazi AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-FEB-2000;
30-JUL-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ferrara N, E
Goddard A, C
Kljavin IJ,
Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADE16507;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AD516507

ID AD610507

XX AD61

XX AD61

XX AD61

XX AD61

XX AU01

XW AU01

YW AU01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
          8888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
peptide). Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO, a chimaeric molecule comprising comprising the vector and producing PRO, a chimaeric molecule comprising PRO fused to a heterologous amino acid sequence, and an anti-PRO profused to a heterologous amino acid sequence, and an anti-PRO antibody. PRO337 polypeptide is useful for detecting a PRO4993 polypeptide in a sample suspected of containing PRO4993 polypeptide.

CC polypeptide. PRO735, PRO700 or PRO739 polypeptide is useful for detecting PRO725, PRO700 or PRO739 polypeptide is useful for detecting PRO725, PRO700 or PRO739 polypeptide is useful for linking a biactive molecule is the toxin, radiolabel, or an antibody. The bioactive molecule is the toxin, radiolabel, or an antibody. The bioactive molecule content of the cell apprehensing PRO4939 polypeptide is useful for linking a bioactive molecule or a cell expressing PRO4939 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO359, polypeptide or anti-PRO339 polypeptide is useful for modulating the biological activity of the cell expressing PRO3493 polypeptide is useful for modulating the biological activity of the cell expressing PRO3493 polypeptide is useful for modulating the biological activity of the cell expressing PRO3493 polypeptide or anti-PRO493 polypeptide is useful for modulating the biological activity of the cell expressing PRO3493 polypeptide or anti-PRO493 polypeptide is useful for modulating the biological activity of the cell expressing PRO359 polypeptide or an anti-PRO493 polypeptide is useful for modulating the biological activity of the cell expressing PRO359 polypeptide or anti-PRO493 polypeptide is useful for modulating the biological activity of the cell expressing PRO359 polypeptide or anti-PRO493 polypeptide is useful for modulating the biological activity of the cell expressing PRO359 polypeptide or anti-PRO493 polypeptide is useful for inhibiting the biological activity of the cell expressing PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human, ss, PCR; secreted protein, transmembrane protein, PRO; cytostatic, ophthalmological, antiarchritic; osteopablib; antiaratic, vulnerary; auditory, tumour growth, retinal disorder, spotts-related joint problem, articular cartilage defects, osteoarthritis, rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.9%; Score 15.8; DB 1; Length 24; 89.5%; Pred. No. 2.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                wound healing; hearing loss; primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                458 CCAGGAAGACTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 CCAGGAAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADD73122 standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human PRO 1072 PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WS-0113296P.
99WO-US000106.
99WO-US005028.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-OCT-2001; 2001US-00145129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0086414P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   acid encoding a PRO protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 89.5
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2003203436-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo, sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-DEC-1998;
05-JAN-1999;
08-MAR-1999;
12-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADD73122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 69
                   ઠે
```

99US-00284291

The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity to an amino acid sequence chosen from 9% fully defined sequences as given in the specification (including PRO lacking its associated signal peptide, a PRO extracellular domain with or without its associated signal

Example 48; SEQ ID NO 305; 452pp; English.

hypoinsulinemia or wounds.

Human PRO 1072 PCR primer #1.

useful

(first entry)

29-JAN-2004 ADD72480;

```
The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 60% amino acid sequence identity con ammembrane protein) having at least 60% amino acid sequence identity con a maino acid sequence chosen from 94 fully defined sequence is given in the specification (including PRO lacking its associated signal peptide). Also included are nucleic acids encoding the PRO proteins peptide). Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acid), a host cell comprising the vector and producing PRO. a chimaeric molecule comprising the vector and producing PRO. a chimaeric molecule comprising to a heterologous amino acid sequence, and anti-PRO anti-PRO. peptide is useful for detecting PRO. 50 polypeptide in a sample suspected of containing PRO4993 polypeptide is useful for detecting PRO4999 polypeptide is useful for detecting PRO4999 polypeptide is useful for detecting PRO4999 polypeptide is useful for linking a bloactive molecule to a cell PRO4999 polypeptide is useful for linking a bloactive molecule is the toxin, radiolabal, or an antibody. The bloactive molecule call. PRO4999 polypeptide is useful for linking a bloactive molecule is the toxin, radiolabal, or an antibody. The bloactive molecule is useful for linking a bloactive molecule is useful for linking a bloactive molecule is useful for linking a bloactive molecule is useful for molecule or anti-PRO4999 polypeptide or an anti-PRO4999 polypeptide is useful for molecule or anti-PRO4
                                                                                                                                         Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Kljavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton DL;
Stewart TA, Tumas D, Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                   New PRO genes and encoded secreted and transmembrane polypeptides, u for treating e.g. lung or breast tumors, osteoarthritis, rheumatoid arthritis, obesity, diabetes, hyperinsulinemia, hypoinsulinemia or
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 48; SEQ ID NO 305; 453pp; English.
25-AUG-1999; 99US-00380138.
18-FEB-2000; 2000WO-US004341.
30-JUL-2001; 2001US-00918585.
                                                                                               (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                            WPI; 2003-875643/81.
                                                                                                                                                                                                                                                                                                                                                                                                                      wounds.
```

., Query Match 1.9%; Score 15.8; DB 1; Length 24; Best Local Similarity 89.5%; Pred. No. 2.1e+02; Matches 17; Conservative 0; Mismatches 2; Indels Sequence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;

·.

Gaps

458 CCAGGAAGAGCTCCAGGAA 476 ccassaarscrccassaa 19

ò

ADD72480 standard; DNA; 24 BP RESULT 70 ADD72480 ID ADD72

WPI; 2003-852598/79

The second of th

```
Human, ss, PCR; secreted protein, transmembrane protein, PRO, cytostatic, ophthalmological, antiarthritic, osteopathic, antirheumatic, vulnerary; additory, tumour growth, retinal disorder; sports-related joint problem, articular cartilage defects; osteoarthritis, rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KP, Botstein D, Desnoyers L, Eaton DL;
E, Fong S, Gao W, Gerber H, Gerritsen ME;
Pd, Grimaldi JC, Gurney AL, Hillan KJ;
Napier MA, Pan J, Paoni NF, Roy MA, Shelton DL;
Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US000219

2000WO-US000277

2000WO-US0003565

2000WO-US003561

2000WO-US005841

2000WO-US005861

2000WO-US005861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US010733.
99WO-US012252.
99US-00380138.
99WO-US028313.
99WO-US028551.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US021141.
98WO-US024855.
99WO-US000106.
99WO-US005028.
99WO-US005190.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US031243.
99WO-US031243.
99WO-US031274.
                                                                                                                                                                                                                                                                                                                                                                                                                           19-OCT-2001; 2001US-00164929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ashkenazi AJ, Baker KP, Be Ferrara N, Filvaroff E, Fe Goddard A, Godowski PJ, G. Kljavin IJ, Kuo SS, Napier Stewart TA, Tumas D, Will:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                    US2003194781-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JAN-2000; 206-JAN-2000; 206-JAN-2000; 206-JAN-2000; 207-JAN-2000; 207
                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JAN-1999;
08-MAR-1999;
10-MAR-1999;
15-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-MAY-1999;
02-JUN-1999;
25-AUG-1999;
30-NOV-1999;
```

89

The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity to an amino acid sequence chosen from 94 fully defined sequences as given to an amino acid sequence chosen from 94 fully defined sequences as given to an amino acid sequence chosen from 94 fully defined sequences as given be peptide, a PRO extracellular domain with or without its associated signal peptide. Also included are nucleic acids encoding the PRO proteins comprising the vector and producing PRO, a chimaeric coll comprising the vector and producing PRO, a chimaeric molecule comprising produced to a heterologous amino acid sequence, and an anti-PRO antibody. PRO493 polypeptide is useful for detecting a PRO493 polypeptide is useful for detecting a PRO493 polypeptide. PRO705. PRO700 or PRO739. PRO4939 polypeptide is useful for detecting PRO317. PRO4939 polypeptide is useful for detecting PRO325. PRO700 or PRO739. PRO4939 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO4933 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO4933 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO4933 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO4933 polypeptide or anti-PRO35, compositive in the cell expressing PRO4933 polypeptide or anti-PRO337 polypeptide or anti-PRO333 polypeptide or anti-PRO337 polypeptide or anti-PRO337 polypeptide or anti-PRO337 polypeptide or anti-PRO339 polypeptide or anti-PRO339 polypeptide or anti-PRO339 polypeptide or anti-PRO359 polypeptide or an New secreted and transmembrane PRO nucleic acids and polypeptides, useful for stimulating the release of tumor necrosis factor alpha from human blood and stimulating the proliferation of differentiation of chondrocyte sports-related joint problems, articular cartilage defects, osteoarthritis or rheumatoid arthritis, wound healing and hearing loss in mammals. The present sequence is a PCR primer used to isolate nucleic the cell expressing PR0725, PR0700 or PR0739 polypeptide. The polypeptides are useful for inhibiting tumour growth, retinal disorders, Example 48; SEQ ID NO 305; 462pp; English. acid encoding a PRO protein.

Seguence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other

Gaps ; 0 Length 24; 2; Indels Query Match
1.9%; Score 15.8; DB 1;
Best Local Similarity 89.5%; Pred. No. 2.1e+02;
Matches 17; Conservative 0; Mismatches 2;

ö

ò

ADE17131 standard; DNA; 24 BP. RESULT 71 ADE17131

29-JAN-2004 (first entry)

Human PRO 1072 PCR primer #1

Human, ss, PCR; secreted protein, transmembrane protein, PRO; oytostatic, ophthalmological, antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem, articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer. XXXXXXXXXXXXXXXXXXX

Homo sapiens.

US2003203433-A1.

30-OCT-2003

18-OCT-2001; 2001US-00145016

98US-0084414P

22-DEC-1998; 05-JAN-1999; 08-MAR-1999; 12-APR-1999;

99WO-US005028. 99US-00284291. 99US-00380138. 25-AUG-1999; 99US-00380138 18-FEB-2000; 2000WO-US004341. 30-JUL-2001; 2001US-00918585

(GETH) GENENTECH INC.

Botstein D, Desnoyers L, Eaton DL; Fong S, Gao W, Gerber H, Gerritsen ME; Grimaldi UC, Gurney AL, Hillan KJ; pier MA, Pan J, Raoni NF, Roy MA, Shelton DL; illiams PM, Wood WI; AJ, Baker KP, Botstein D, Filvaroff E, Fong S, Gacodowski PJ, Gzimaidi JC, Kuo SS, Napier MA, Pan , Tumas D, Williams PM, 1 Ashkenazi AJ, Ferrara N, Fi Goddard A, Gc Kljavin IJ, F Stewart TA, 1

WPI; 2003-875640/81.

New genes, and its encoded secreted and transmembrane polypeptides, useful for treating e.g. lung or breast tumors, osteoarthritis, rheumatoid arthritis, obesity, diabetes, hyperinsulinemia,

hypoinsulinemia or wounds

Example 48; SEQ ID NO 305; 459pp; English.

The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity con an amino acid sequence in the specification (including PRO lacking its associated signal in the specification (including PRO lacking its associated signal peptide). Also included removes the without its associated signal peptide). Also included removes a cide encoding the PRO proteins mentioned above, a vector comprising as PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimacin molecule comprising the vector and producing PRO, a chimacin molecule comprising the vector and producing PRO, a chimacin molecule comprising the vector and producing PRO, a chimacin molecule comprising the vector and producing PRO, a chimacin molecule comprising the vector and producing is useful for detecting a PRO4993 polypeptide is useful for detecting a projection propagatide. PRO725, PRO700 or PRO739, PRO4993 polypeptide is useful for detecting projectide. PRO725, PRO700 or PRO739, PRO4993 polypeptide is useful for linking a ploative molecule to a cell expressing PRO4993 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO4993 polypeptide; PRO725, PRO700 or PRO739 polypeptide, and PRO1559 polypeptide; producing p

osteoarthritis or rheumatoid arthritis, wound healing and hearing loss in mammals. The present sequence is a PCR primer used to isolate nucleic acid encoding a PRO protein.

Sequence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;

```
schu568-1.rng
Frr Jul 30 10:32:03 2004
```

Page

```
ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; ss; PCR; secreted protein; transmembrane protein; PRO; oytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                     Gaps
                                                     ;
0
       Length 24;
                                             2; Indels
Score 15.8; DB 1;
Pred. No. 2.1e+02;
0; Mismatches 2;
                                                                                               458 CCAGGAAGACTCCAGGAA 476
                                                                                                                                             CCAGGAAATGCTCCAGGAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US024855.
99WO-US00106.
99WO-US005190.
99WO-US010733.
99WO-US01252.
99WO-US02813.
99WO-US028551.
99WO-US036551.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAY-2001; 2001WO-US017092.
01-UUN-2001; 2001WO-US017800.
20-UUN-2001; 2001WO-US019692.
29-UUN-2001; 2001WO-US021066.
09-UUL-2001; 2001WG-US021735.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US004341.
2000WO-US005814.
2000WO-US005814.
2000WO-US005132.
2000WO-US014532.
2000WO-US014642.
2000WO-US014641.
2000WO-US014641.
2000WO-US014641.
2000WO-US015264.
2000WO-US015264.
2000WO-US015264.
2000WO-US015264.
                                                                                                                                                                                                                                                                 ADE48639 standard; DNA; 24 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US031274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US000219.
                                                                                                                                                                                                                                                                                                                                                                                                          Human PRO 1072 PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-OCT-2001; 2001US-00166709
  Query Match
Best Local Similarity 89.5%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                            29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2003104536-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JAN-2000; 2

06-JAN-2000; 2

11-FEB-2000; 2

14-FEB-2000; 2

24-FEB-2000; 2

24-FEB-2000; 2

24-ARR-2000; 2

21-MAR-2000; 2

21-MAR-2000; 2

21-MAY-2000; 2

22-JUN-2000; 2

24-JUN-2000; 2

24-JUN-2000; 2

21-DEC-2000; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 - NOV - 1998

05 - JAN - 1999

06 - MAR - 1999

10 - MAR - 1999

14 - MAY - 1999

30 - JUN - 1999

30 - DEC - 1999

16 - DEC - 1999

30 - DEC - 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-DEC-2000;
28-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JUN-2003
                                                                                                                                                                                                                                                                                                                 ADE48639;
                                                                                                                                                                                                                 RESULT 72

ADE 48639

ADE 49639

ADE 48639

                                                                                                                                        q
```

```
The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity can amino acid sequence chosen from $4$ fully defined sequence identity con an amino acid sequence chosen from $4$ fully defined sequence identity con an amino acid sequence chosen from the specification (included are nucleic acids encoding the PRO proteins peptide). Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acid), a host cell peptide). Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising the vector man producing PRO, a chimaeric molecule comprising propertied is useful for detecting a PRO4993 polypeptide is useful for detecting propertied. PRO725, PRO700 or PRO725, PRO7
                                                                  Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL; Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME; Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Kljavin IJ, Kuo SS, Napier M, Paoni NF, Roy MA, Shelton DL; Stewart TA, Tumas D, Williams PM, Wood WI;
                                                                                                                                                                                                                                                                       New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO4993 or PRO337, useful in molecular biology, chromosome and gene mapping, in generating antisense RNA and DNA, and in gene therapy.
                                                                                                                                                                                                                                                                                                                                                                       Example 48; SEQ ID NO 305; 460pp; English
                     (GETH ) GENENTECH INC.
                                                                                                                                                                                                                       WPI; 2004-008994/01.
```

Gaps . 0 1.9%; Score 15.8; DB 1; Length 24; 89.5%; Pred. No. 2.1e+02; artive 0; Mismatches 2; Indels 458 CCAGGAAGAGCTCCAGGAA 476 ccaddaargcrccaddaa 19 BP. ADE89740 standard; DNA; 24 Query Match Best Local Similarity 89.5' Matches 17, Conservative 29-JAN-2004 (first entry) ADE89740; RESULT 73 ADE89740 ID ADER ઠ XXXX

ö

Sequence 24 BP; 8 A; 7 C; 7 G; 2 T; 0 U; 0 Other;

```
98045-0083545P

98045-0083554P

98045-0083559P

98045-0084414P

98045-0084414P

98045-0084414P

98045-008441P

98045-008441P

98045-0084639P

98045-0084639P

98045-0084639P

98045-0084639P

98045-0084639P

98045-0084639P

98045-0084639P

98045-00866333P

98045-0085533P

98045-0085533P

98045-0085632P

98045-0086632P

98045-0086632P

98045-0086632P

98045-0086632P

98045-0086632P

98045-0086436P

98045-0086631P

98045-0086631P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US010733.
99WO-US012252.
99US-0139557P.
99US-0142680P.
99US-0145698P.
99US-0145698P.
99US-016506P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000WO-US000376.
2000WO-US003565.
2000WO-US004341.
2000WO-US005004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US000219
2000WO-US000277
 29-APR-1998;
29-APR-1998;
29-APR-1998;
30-APR-1998;
313-APR-1998;
32-APR-1998;
33-APR-1998;
33-APR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-MAR-1999;
26-APR-1999;
28-APR-1999;
28-APR-1999;
14-MAY-1999;
16-UN 1999;
16-UN 1999;
16-UN 1999;
23-UUN 1999;
23-UUN 1999;
23-UUN 1999;
26-UUL 1999;
26-UUL 1999;
26-UUL 1999;
26-UUL 1999;
30-DEC-1999;
16-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-FEB-2000;
18-FEB-2000;
24-FEB-2000;
   Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteopathritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                 97105 - 006 622 50 P
97105 - 006 624 19 P
97105 - 006 63 14 P
97105 - 006 63 14 P
97105 - 00774 50 P
98105 - 00777 64 1P
98105 - 00778 93 6P
98105 - 0078 93 6P
98105 - 0079 92 3P
98105 - 008 01 32 3P
98105 - 008 11 3P
98105 - 008 12 3P
98105 - 008 1P
                                                                                                                                                                                                                                                                  2001US-00978375
                       Human PRO 1072 PCR primer #1
                                                                                                                                                                                                US2003130181-A1
                                                                                                                                                                 sapiens.
                                                                                                                                                                                                                                                                  16-OCT-2001;
                                                                                                                                                                                                                                                                                                 17-OCT-1997,
03-NOV-1997,
13-NOV-1997,
11-MAR-1998,
11-MAR-1998,
11-MAR-1998,
12-MAR-1998,
12-MAR-1998,
20-MAR-1998,
20-MAR-1998,
20-MAR-1998,
20-MAR-1998,
20-MAR-1998,
27-MAR-1998,
31-MAR-1998,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-APR-1998
15-APR-1998
15-APR-1998
15-APR-1998
15-APR-1998
15-APR-1998
21-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
23-APR-1998
23-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-APR-1998;
29-APR-1998;
29-APR-1998;
                                                                                                                                                                                                                                 10-JUL-2003
                                                                                                                                                               Homo
         3
```

99WO-US031274

99WO-US031243

99WO-US028551

```
Sequences were determined from the ends of chromosome 11-specific cosmids by automated sequencing without intermediate subcloning. A sample of 371 DNA sequence fragments were determined and of these, 277 were suitable for STS primer prediction by computer analysis (using the "Primer" program available from E.Lander, MIT). The STSs and cosmids were mapped by in situ hybridisation, somatic cell hybrid analysis or both. Using this method, 370 STSs specific for human chromosome 11 were generated and most of them were regionally mapped. This procedure illustrates a novel mapping complex genomes, designated "sequence sampled mapping method is useful for the completion of high density sequence-based maps, and ultimately, for the AAGB2001-082706 for STS primers. (Updated on 25-WAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Stem cell antigen 2; thymocyte; neuronal cell; organ transplantation; Alzheimer's disease; paroxysmal nocturnal haemaglobinureia; inflammation; glycosyl phosphatidylinositol anchor; GPI; neoplasia; signal peptide; metastasis; agonist; antibody; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequencing complex genomes, present as fragments in a cosmid library - k sequencing end-specific nucleotides of each clone then correlating with spatial relationship of cosmid, esp. for mammalian chromosomes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.9%; Score 15.6; DB 1; Length 22;
81.8%; Pred. No. 2e+02;
ative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 22 BP; 5 A; 5 C; 4 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human stem cell antigen 2 PCR primer #1.
                                                                                                                                                                                                                                                                               (SALK ) SALK INST BIOLOGICAL STUDIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 548 CTCTGTAGCCCAACAGCAGGGA 569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 4; Page 66; 128pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22 CTTTGTAGCACAAAAGCAGGTA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAT78932 standard; DNA; 23 BP
                                                                                                                                                                                                       93US-00078471.
93US-00117952.
                                                                                                                                                          94WO-US006810.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95WO-US015314.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match

Query Match

Best Local Similarity 81.0.,

Best Local 18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-JAN-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1995-036508/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                       WO9429486-A1
                                                                                                                                                                                                         15-JUN-1993;
                                                                                                                                                                                                                                 07-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9718224-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-NOV-1995;
                                                                                                          22-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-MAY-1997
       Synthetic.
                                                                                                                                                                                                                                                                                                                                 Evans GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAT78932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 75
AAT78932/C
AAT78932/C
XX
AAT78932/C
XX
XX
DT 23-UF
XX
XX
XX
Stem
XW
Alzhe
Alzhe
XX
Alzhe

       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sequence sampled mapping; genomic analysis; complex genome mapping; cosmid library; chromosome 11; sequence tagged site; STS analysis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 1.9%; Score 15.8; DB 1; Length 24; Best Local Similarity 89.5%; Pred. No. 2.1e+02; Matches 17; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chromosome 11 (locus D11S1037) STS primer cSRL-2c7-tZ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        458 CCAGGAAGAGCTCCAGGAA 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAGGAAATGCTCCAGGAA 19
02-MAR-2000; 2000MO-USG05841.
10-MAR-2000; 2000MO-USG06319.
21-MAR-2000; 2000MO-USG06319.
30-MAR-2000; 2000MO-USG08439.
17-MAY-2000; 2000MO-USG08439.
22-MAY-2000; 2000MO-USG14042.
30-MAY-2000; 2000MO-USG14041.
28-JUL-2000; 2000MO-USG15264.
28-JUL-2000; 2000MO-USG15264.
28-JUL-2000; 2000MO-USG32678.
20-DEC-2000; 2000MO-USG32678.
20-DEC-2000; 2000MO-USG32678.
22-MAR-2001; 2001MO-USG09552.
22-MAR-2001; 2001MO-USG09562.
22-MAR-2001; 2001MO-USG09692.
23-JUN-2001; 2001MO-USG17092.
01-JUN-2001; 2001MO-USG17092.
01-JUN-2001; 2001MO-USG17092.
01-JUN-2001; 2001MO-USG17092.
01-JUL-2001; 2001MO-USG17092.
01-JUL-2001; 2001MO-USG1736.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAQ82104 standard; DNA; 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ASHKENAZI A J.
BAKER K P.
BONSTEIN D.
DESNOYERS L.
EATON D L.
FERRARA N.
FILVAROFF E.
GAO W.
GERBER H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GERRITSEN M E.
GODDARD A.
GODDARD A.
GODDARD J.
GIRMALDI J. C.
GURNEY A L.
HILLAN K J.
KLJAVIN I J.
KLJAVIN I J.
KRUS S.
KRUS S.
KRUS S.
RADIER M A.
PAONI N F.
PAONI N F.
ROY M A.
SHELTON D L.
STEWART T A.
TUMAS D.
WILLIAMS P.
WILLIAMS P.
WILLIAMS P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAR-2003
31-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HILL/)
(KLJA/)
(KUOS/)
(NAPI/)
(PANU/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (BAKE/)
(BOTS/)
(DESN/)
(EATO/)
(FERR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (FILV/)
(FONG/)
(GAOW/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GERR/)
(GODD/)
(GODO/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GIRM/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (SHEL/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ROYM/)
```

g

ô

Ni d,

```
The invention relates to an isolated polynucleotide comprising a polynucleotide with at least 95% identity to a polynucleotide encoding a human stem cell antigen 2 (Msca-2) polypeptide comprising amino acids 1-82 of the mature hsca-2 or a polynucleotide encoding the same mature polypeptide encoded by the human cDNA in ATCC Deposit No.97301, or their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gocayne JD;
                                                                                                                                                                                                                                                                                                                                   554 AGCCCAACAGCAGGGATCCTCG 575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 1; Page 10; 21pp; English
                                                                                                                                                                                                                                                                                                                                                                  22 AGCACATCAGCATGGATCCGCG 1
Example 1; Col 18; 20pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-0007287P.
96US-00746397.
2000US-00493269.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-MAR-2002; 2002US-00101747
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABS55566 standard; DNA; 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gentz RL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENTZ R L.
GOCAYNE J D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-750053/81
                                                                                                                                                                                                                                                                                Local Similarity
nes 18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2002119487-A1.
                                                                                                                                                                                             differentiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                transplantation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NI G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-NOV-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yu G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-AUG-2002
                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABS55566;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GENT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (/ffin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (YDGG/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ni J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 77
                                                                                                                                                                                                                                                                                                                                                                                                                                           ABS55566/
   8 X C C C C C C C C C C X X
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                         PCR primers T8932-3 were used to amplify human stem cell antigen 2 (hScanapper, minus the signal peptide sequence. These primers were used to amplify hSca-2 gene for insertion into a bacterial expression vector pQe-60 (giagen). The hSca-2 gene and protein are used to treat disorders where a patient needs hSca-2, e.g. for stimulating maturation and differentiation of thymocytes, to protect neuronal cells, to prevent rejection during organ transplantation, to treat parcysmal nocturnal haemoglobinuria and to treat Alzheimer's disease. hSca-2 antagonists, e.g. antibodies may be used in the treatment of neoplasia by preventing metastasis. It can also be used to diagnose a disease or susceptibility to a disease related to under-expression of the polypeptide by determining the presence of a mutation in a hSca-2 sequence
                                                                                                                                           for stimulating
treating e.g. paroxysmal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New human stem cell antigen 2 polypeptide and polynucleotide, useful for stimulating thymocyte maturation and differentiation, treating hyperacute rejection, Alzheimer's Disease or inflammation and gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human, stem cell antigen 2, hSca-2; thymocyte maturation, PNH; thymocyte differentiation; inflammation; hyper-acute rejection; paroxysmal nocturnal haemoglobinuria; Alzheimer's disease; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.9%; Score 15.6; DB 1; Length 23; 81.8%; Pred. No. 2.1e+02; iive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human stem cell antigen 2 coding sequence PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 23 BP; 3 A; 6 C; 7 G; 7 T; 0 U; 0 Other;
                                                                                                                                         Human stem cell antigen 2 and related DNA - used thymocyte maturation and differentiation and for nocturnal haemoglobinuria, Alzheimer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    554 AGCCCAACAGCAGGATCCTCG 575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                          Gocayne JD;
                                                                                                                                                                                                               Example 1; Page 34; 59pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCACATCAGCATGGATCCGCG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ϋ́υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ni J,
   95WO-US015314
                                      (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95US-0007287P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAC63460 standard; cDNA; 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 81.8
                                                                        Gentz R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gocayne JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-637838/61.
                                                                                                         WPI; 1997-289216/26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        paroxysmal noct
PCR primer; ss
   13-NOV-1995;
                                                                          Yu G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-NOV-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JS6130061-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAC63460;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gentz R,
```

AAC63460/c RESULT 76

ઠે

```
ò
The present invention is related to the isolation of the human stem cell antigen 2 (NSca-2) protein and coding sequence. This protein is a member of the Ly-6 superfamily and is involved in the cell activation of haematopoietic cells. The protein and its coding sequence can be used in the diagnosis and treatment of inflammatory and infectious disorders of the nervous system, hyper-acute rejection, paroxysmal nocturnal haemoglobinuria (PNH), haemolytic anaemia, pancytopaemia, venous thrombosis and Alzheimer's disease, possibly via gene therapy. In addition, they can be used to promote thymocyte maturation and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; ss; PCR; stem cell antigen-2; hSca-2; Alzheimer's disease; paroxysmal nocturnal haemoglobinuria; PNH; thymocyte maturation; transplant rejection; inflammation; haemolytic anaemia; pancytopaenia; venous thrombosis; astrocyte; infectious disorder; hyperacute rejection; antiinflammatory; anticoagulant; antitumour; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel human stem cell antigen 2 polynucleotide and the polypeptide encoding it useful for stimulating thymocyte maturation, treating Alzheimer's disease, inflammation, and preventing rejection during
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.9%; Score 15.6; DB 1; Length 23; 81.8%; Pred. No. 2.1e+02; ative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seguence 23 BP; 3 A; 6 C; 7 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human stem cell antigen-2, hSca-2, PCR primer #1.
```

```
complements. Also included are hSca-2 vectors, host cells, anti-hSca-2 catibodies, antagonists and identifying compounds which bind to/inhibit Sca-2. bisca-2 is useful for treatment of a patient with need of a hSca-2 protection and the antagonist is useful for the treatment of a patient with need to inhibit hSca-2 polypeptide in vivo. Human Sca-2 polypeptide is useful for standants in processes. hSca-2 polypeptide is useful for standants thymocyte maturation and differentiation, protecting neuronal cells, preventing rejection during organ transplantation, treating cells, preventing rejection during organ transplantation, treating inflammatory and inflammatory and inflammatory and inflammatory and infectious disorders of the neurous system, prevents complement-mediated lysis and activation of endothelial cells for the treatment of hyperacute rejection and may be employed during resonate compan transplantation. The polypeptide are also employed as anti-inflammatory, anti-coagulant and as anti-tumoural agents, and are also involved in antigen presentation to obtain an immune response. The polypeptides are also involved in antigen presentation to obtain an immune response. The polypeptides are also useful for chromosome identification. hSca-2 polypeptides are also useful to isolate the polypeptide from tissue expressing the polypeptide. The present sequence is a PCR primer which amplifies a coli nucleic acid encoding mature hSca-2 for expression in B. coli
```

Query Match 1.9%; Score 15.6; DB 1; Length 23; Best Local Similarity 81.8%; Pred. No. 2.1e+02; 4; Indels Sequence 23 BP; 3 A; 6 C; 7 G; 7 T; 0 U; 0 Other; 0; Mismatches 554 AGCCCAACAGCAGGGATCCTCG 575 AGCACATCAGCATGGATCCGCG 1 Conservative 18; 22 Matches

ö

Gaps ..

> ABQ80299 standard; DNA; 23 27-JUN-2003 (first entry) Primer Telo-1R. ABQ80299; ABQ80299 d

ВР

Primer; PCR; amplify; regulation; cell growth; myocardial infarction; osteoblast differentiation; CD49c; CD90; telomerase; p21; p53; CBFA1; BSP; orce binding factor 1; bone staloprotein; degeneration; trauma; acute injury; cardiac; neurological; spinal cord injury; ardiac; neurological; spinal cord injury; adversed; Parkinson's disease; stroke; traumatic Drain injury; Rabry Disease condition; brain tumour; metachromatic dystrophy; adrenal leukodystrophy; Canavan disease; Pelizaeus Merzbacher; Nieman-pick; congestive heart failure; ss.

Homo sapiens

WO2003025149-A2. 27-MAR-2003.

20-SEP-2002; 2002WO-US029971.

21-SEP-2001; 2001US-00960244.

(NEUR-) NEURONYX INC.

Ragalia V; Kopen GC, Righter WF, Rutkowski JL, Herring WJ, Wagner J;

WPI; 2003-354604/33.

New substantially homogenous cell population that co-express CD49c, CD90

```
The sequences given in AB080288-99 are primers which were used to
determine the expression of transcripts encoding regulators of cell
c growth and osteoblast differentiation. These primers were used to test
the cell populations of the invention which co-express CD49c, CD90 and
telomerase. The expression of transcripts for telomerase, p21, p53, CBRA1
cand BSP were determined using quantitative PCR. Cell populations which co-
express CD49c and CD90 express telomerase at the level of approximately
c express CD49c and CD90 express telomerase at the level of approximately
c 13 transcripts/10 power 6 transcripts of 18S rRNA, and these populations
c continue to proliferate at a constant rate. Compositions containing the
cell populations of the invention are useful in treating humans suffering
from a degenerative, traumatic, acute injury, cardiac or neurological
condition, e.g., such as spinal cord injury, amourcrophic lateral
sclerosis, Parkinson's disease, stroke, traumatic brain injury, Fabry
Disease condition, metachromatic dystrophy, adrenal leukodystrophy,
c Canavan disease, Pellaraeus Merzbacher, Nieman-pick or brain tumour,
myocardial infarction or congestive heart failure. This primer is
c deposited under Genbank ID AF015950 and its by location is 1625-1650 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, PRO; EST; expressed sequence tag; PCR primer; hybridisation; probe; blood coagulation disorder; cancer; cellular adhesion disorder; secreted protein; transmembrane protein; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
and telomerase, useful for treating degenerative, traumatic, acute injury, cardiac or neurological conditions in humans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                              1.9%; Score 15.6; DB 1; Length 23; ilarity 81.8%; Pred. No. 2.1e+02; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 23 BP; 6 A; 10 C; 6 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841 CCAGAACACAGCCCCCCACTGG 862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 ccedalcacheccancecred 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human PRO871 PCR forward primer 1.
                                                      Example 5; Page 42; 95pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0077450P.
98US-0077632P.
98US-0077641P.
98US-0077791P.
98US-007804P.
98US-007808P.
98US-0078910P.
98US-0078910P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0079294P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ34098/c.
ID AAZ34098 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-DEC-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
ses 18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9946281-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-SEP-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ34098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 79
     ઠે
```

schu568-1.rng

```
98US-0079728P

98US-0079786P

98US-0079786P

98US-0080105P

98US-00801194P

98US-00801194P

98US-00801194P

98US-00801194P

98US-00801194P

98US-00801194P

98US-008129P

98US-008129P

98US-008129P

98US-0081318P

98US-0085131P

98US-008561P

98US-008561P

98US-008561P

98US-008561P

98US-008561P

98US-008561P

98US-008561P

98US-008561P

98US-008561P

98US-008561P
      27 MAR 1998;

30 MAR 1998;

31 MAR 1998;

31 MAR 1998;

31 MAR 1998;

31 MAR 1998;

01 APR 1998;

01 APR 1998;

01 APR 1998;

01 APR 1998;

06 APR 1998;

09 APR 1998;

09 APR 1998;

15 APR 1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-MAY-1998;
15-MAY-1998;
15-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-MAY-1998;
22-MAY-1998;
22-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                              -MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                -MAY-1998;
-MAY-1998;
-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                          29-APR-1998
                                                                                                                                                                                                                                                                                                                                                                          05-MAY-1998,
06-MAY-1998,
                                                                                                                                                                                                                                                                                                                              29-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                     07-MAY-1998
07-MAY-1998
                                                                                                                                                                                                                                                                                                                                         9-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                       07-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .5-MAY-1998
.8-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5-MAY-1998
```

The present invention describes secreted and transmembrane polypeptides and their polymotlectides. The nucleotide sequences are useful as sources of probes, primers, for chromosome mapping, and for generation of antisense sequences. They can also be used to create transgenic animals. The proteins can be used to treat a variety of diseases and disorders, depending on their function. Diseases that may be treated include blood coagulation disorders, cancers and cellular adhesion disorders. They may also be used to raise antibodies. AAX33891 to AAX34338, and AAX41685 to AAX41774 represent polymucleoride and polypeptide sequence given in the exemplification of the present invention New secreted and transmembrane polypeptides and their polynucleotides, useful for treating blood coagulation disorders, cancers and cellular adhesion disorders. Human, secreted protein; transmembrane protein, PRO, EST, cytostatic; expressed sequence tag; detection; cancer; PCR primer; probe; ss. Gaps 0 Query Match
Best Local Similarity 81.8%; Pred. No. 2.3e+02;
Matches 18; Conservative 0; Mismatches 4; Indels Gurney A, Yuan J, Baker KP, Sequence 24 BP; 5 A; 6 C; 9 G; 4 T; 0 U; 0 Other; Human PRO871 forward PCR primer SEQ ID NO:246. Example 40; Page 215; 530pp; English. 403 CCCTGCTCCAGCAGGCTCTCCG 424 24 CCTGTGCCAGTAGGATCTCCG 3 758/c AAC78758 standard; DNA; 24 BP 99WO-US005028. 99US-0123957P. 99US-013673P. 99US-0131445P. 99US-0134287P. 99US-0141037P. 99US-0141037P. 18-FEB-2000; 2000WO-US004341 08-FEB-2001 (first entry) (GETH) GENENTECH INC Goddard A, WPI; 1999-551358/46. WO200053756-A2. 28-APR-1999; 13-MAY-1999; 26-JUL-1999; 29-OCT-1999; 30-DBC-1999; 02-DBC-1999; 16-DBC-1999; 16-DBC-1999; 30-DBC-1999; 30-DBC-1999; 30-DBC-1999; Homo sapiens L2-MAR-1999; 29-MAR-1999; 21-APR-1999; 14-SEP-2000 AAC78758; Wood WI, RESULT 80 AAC78758/c g

99WO-US028313. 99WO-US028551. 99WO-US028565.

99WO-US031243 99WO-US031274 2000WO-US000219. 2000WO-US000277. 2000WO-US000376.

06-JAN-2000;

99WO-US030095

ö

.; 0

·.

```
The invention relates to an oligonucleotide array (1) comprising at least different addresses (adapter sequences) with each comprising a different capture probe selected from a group consisting of the sequences given in ABQ00010-ABQ13409. (1) is useful for immobilising a target nucleic acid sequence by attaching a adapter nucleic acid (ABQ00010-ABQ13409) to a target nucleic acid to form a modified target nucleic acid and contacting the modified target nucleic acid with (1). The steps of above method is useful for detecting a target nucleic acid, which further comprises detecting the presence of the modified target nucleic acid, which further
                                                                                                                                                                                                                             1.9%; Score 15.6; DB 1; Length 24;
81.8%; Pred. No. 2.3e+02;
tive 0; Mismatches 4; Indels
                                                                                                                                                                                               Sequence 24 BP; 5 A; 5 C; 8 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Oligonucleotide adapter/capture probe 8206.
                                                                                                                                                                                                                                                                                                  818 TACTGTGGGTGCTGAAGCTGGT 839
                                                                                                                                                                                                                                                                                                                                24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 190; 261pp; English.
Claim 1; Page 190; 261pp; English.
                                                                                                                                                                                                                                                                                                                         TAATGTGGGTGCTGACGCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                   ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-AUG-2000; 2000US-0227948P.
29-AUG-2000; 2000US-0228854P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-AUG-2001; 2001WO-US026519.
                                                                                                                                                                                                                                                                                                                                                                                                                   ABQ08215 standard; DNA; 24
                                                                                                                                                                                                                                                                  18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ILLU-) ILLUMINA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-292068/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200216649-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gunderson K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABQ08215;
                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                   ABQ08215/c
                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                   RESULT 82
 8 X C C C C C C C C X &
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                             AAC78458 to AAC78599 represent polynucleotide and BST (expressed sequence tag) sequences which encode secreted or transmembrane PRO polypeptides. The PRO polynucleotides and polypeptides have cytostatic activity. The polynucleotides and polypeptides can be used for detecting the presence of PRO polypeptides in samples, for linking bioactive molecules to cells and for modulating biological activities of cells, using the polypeptides for specific targeting. The polypeptide targeting can be used to kill the target cells, e.g. for the treatment of cancers. The polypeptide pairs provide specific targeting of bioactive molecules to cells. AAC78600 to AAC78897 represent PCR primers and probes used in the isolation of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Array comprising adapter sequences useful for immobilizing or detecting a target nucleic acid sequence, has different addresses comprising different specific capture probes.
                                              Botstein D, Desnoyers L, Eaton DL;
Fong S, Gao W, Gerber H, Gerritsen ME;
Grimaldi CJ, Gurney AL, Hillan KJ;
ier MA, Pan J, Paoni NF, Roy MA, Shelton DL;
lliams PM, Wood WI;
                                                                                                                                                                                 Novel PRO polypeptides and polynucleotides used in detection methods, target bioactive molecules to specific cells, and to modulate cellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . Match 1.9%; Score 15.6; DB 1; Length 24; Local Similarity 81.8%; Pred. No. 2.3e+02; es 18; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oligonucleotide array; adapter sequence; probe; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 24 BP; 5 A; 6 C; 9 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oligonucleotide adapter/capture probe 8165.
                                                                                                                                                                                                                                                    Example 40; Page 270; 636pp; English
                                                                                               Napier MA, Pa
Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        403 CCCTGCTCCAGCAGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cccrereccaeracearcrece 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-AUG-2001; 2001WO-US026519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-AUG-2000; 2000US-0227948P
29-AUG-2000; 2000US-0228854P
                                     Ferrara N, Filvaroff E, F
Goddard A, Godowski PJ, G
Kljavin IJ, Kno ec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABQ08174 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                   Kuo SS,
Tumas D,
                 (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ILLU-) ILLUMINA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-292068/33.
                                                                                                                                                  WPI; 2000-611443/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200216649-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-FEB-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gunderson K;
                                                                                                                 Stewart TA,
                                                                                                                                                                                                                      activities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABQ08174;
                                                                                                                                                                                                  target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 81
```

요

ð

```
The invention relates to an oligonucleotide array (I) comprising at least 25 different addresses (adapter sequences) with each comprising a different capture probe selected from a group consisting of the sequences given in ABQ00010-ABQ13409. (I) is useful for immobilising a target nucleic acid sequence by attaching a adapter nucleic acid (ABQ00010-ABQ13409) to a target nucleic acid to form a modified target nucleic acid and contacting the modified target nucleic acid with (I). The steps of above method is useful for detecting a target nucleic acid, which further comprises detecting the presence of the modified target nucleic acid, which further
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Array comprising adapter sequences useful for immobilizing or detecting a target nucleic acid sequence, has different addresses comprising different specific capture probes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.9%; Score 15.6; DB 1; Length 24;
81.8%; Pred. No. 2.3e+02;
ive 0; Mismatches 4; Indels
Oligonucleotide array; adapter sequence; probe; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 24 BP; 6 A; 8 C; 5 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mata n
Winda
```

schu568-1.rng

```
cell death, growth induction cascade, blood coagulation cascade, viral infection, ss.
                                                  US2003050239-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-APR-1998;
29-APR-1998;
30-APR-1998;
                                Homo sapiens
                                                                        13-MAR-2003
  ö
                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to an oligonucleotide array (I) comprising at least 25 different addresses (adapter sequences) with each comprising a different capture probe selected from a group consisting of the sequences given in ABQ00010-ABQ13409. (I) is useful for immobilising a target nucleic acid sequence by attaching a adapter nucleic acid (ABQ00010-ABQ13409) to a target nucleic acid to form a modified target nucleic acid and contacting the modified target nucleic acid with (I). The steps of above method is useful for detecting a target nucleic acid, which further comprises detecting the presence of the modified target nucleic acid,
                                                                                                                                                                                                                                                                                                                                                            Array comprising adapter sequences useful for immobilizing or detecting a target nucleic acid sequence, has different addresses comprising different specific capture probes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; secreted and transmembrane protein; PRO; virucide; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Secreted and transmembrane protein associated oligonucleotide #22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.9%; Score 15.6; DB 1; Length 24;
larity 81.8%; Pred. No. 2.3e+02;
Conservative 0; Mismatches 4; Indels
                                                                                                                                                                 Oligonucleotide array; adapter sequence; probe; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 24 BP; 5 A; 5 C; 8 G; 6 T; 0 U; 0 Other;
                                                                                                                                             Oligonucleotide adapter/capture probe 2110.
             818 TACTGTGGGTGCTGAAGCTGGT 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      818 TACTGTGGGTGCTGAAGCTGGT 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAATGTGGTGCTGACGCT
                            TAATGTGGTGCTGACGCCGAT 1
                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 94; 261pp; English.
                                                                                 ABQ02119 standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP.
                                                                                                                                                                                                                                                27-AUG-2001; 2001WO-US026519.
                                                                                                                                                                                                                                                                    25-AUG-2000; 2000US-0227948P.
29-AUG-2000; 2000US-0228854P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACD42631/c
ID ACD42631 standard; DNA; 24
                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                  (ILLU-) ILLUMINA INC
                                                                                                                                                                                                                                                                                                                                          WPI; 2002-292068/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
les 18; Conserv
                                                                                                                                                                                                         WO200216649-A2
                                                                                                                                                                                                                                                                                                                        Gunderson K;
                                                                                                                          11-JUN-2002
                                                                                                                                                                                                                           28-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-SEP-2003
                                                                                                                                                                                      Synthetic.
                               22
                                                                                                     ABQ02119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACD42631;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                              RESULT 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 84
                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0X2X5X5X5X
```

```
97US - 0064249P.
97US - 0064249P.
97US - 006424P.
97US - 006311P.
98US - 0077450P.
98US - 0077641P.
98US - 0077641P.
98US - 0077791P.
98US - 0078004P.
98US - 0078010P.
98US - 0078910P.
                                                                                                                                           9805-00797869-9805-00799239-9805-00799239-9805-00801659-9805-00801849-9905-00801349-9805-008033349-9805-008033349-
                                                                                                                                                                                                               15-OCT-2001; 2001US-00978191
```

```
98US-0084144P.
98US-0084414P.
98US-0084414P.
98US-0084419P.
98US-0084619P.
98US-0084627P.
98US-0084627P.
98US-0084643P.
98US-0086632P.
98US-008582P.
98US-008582P.
98US-008583P.
98US-01872P.
98US-01372P.
98US-01373P.
98US-01373P.
98US-01373P.
98US-01373P.
98US-01373P.
98US-01373P.
99US-01373P.
99US-01373P.
99US-01373P.
99US-01373P.
99US-01373P.
99US-01378P.
99US-01388P.
99US-014288P.
99US-014288P.
  05-MAY-1998;

06-MAY-1998;

06-MAY-1998;

07-MAY-1998;

07-MAY-1998;

07-MAY-1998;

07-MAY-1998;

07-MAY-1998;

07-MAY-1998;

13-MAY-1998;

13-MAY-1998;

15-MAY-1998;

16-MAY-1998;

16-MAY-1999;

16-MAY-1998;

16
    $\frac{\pi}{\pi} \\ \text{$\frac{\pi}{\pi} \
```

```
Human; secreted and transmembrane protein; PRO; antiinflammatory; antiarteriosclerotic; cardiant; anti-infertility; anti-HIV; cytostatic; antidiabetic; gene therapy; inflammatory disease; organ failure; atherosclerosis; cardiac injury; infertility; birth defect; premature aging; AIDS; cancer; diabetic complication; chromosome mapping; gene mapping; pharmaceutical; diagnostic; biosensor; bioreactor; tissue typing; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ã.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel human secreted and transmembrane protein related primer #119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eaton DL;
Gerritsen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              / Match 1.9%; Score 15.6; DB 1; Length 24; Local Similarity 81.8%; Pred. No. 2.3e+02; les 18; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L,
Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-DEC-1999; 99WO-US030095.
30-DEC-1999; 99WO-US031243.
30-DEC-1999; 99WO-US031243.
30-DEC-1999; 99WO-US031243.
30-DEC-1999; 99WO-US031243.
30-DEC-1999; 99WO-US001274.
66-JAN-2000; 2000WO-US0002376.
11-FEB-2000; 2000WO-US003561.
24-FEB-2000; 2000WO-US003561.
24-MAR-2000; 2000WO-US005841.
22-MAR-2000; 2000WO-US005841.
22-MAR-2000; 2000WO-US005841.
23-MAY-2000; 2000WO-US005841.
24-AUG-2000; 2000WO-US008439.
24-AUG-2000; 2000WO-US014941.
24-AUG-2000; 2000WO-US014941.
24-AUG-2000; 2000WO-US014941.
24-AUG-2000; 2000WO-US014941.
24-AUG-2000; 2000WO-US01552.
30-MAY-2000; 2000WO-US01552.
30-MAY-2000; 2000WO-US01552.
30-MAR-2001; 2001WO-US03552.
30-MAR-2001; 2001WO-US015652.
32-MAR-2001; 2001WO-US016952.
32-MAR-2001; 2001WO-US016952.
32-MAR-2001; 2001WO-US0169692.
32-MAR-2001; 2001WO-US017692.
30-JUN-2001; 2001WS-0US64280.
31-JUN-2001; 2001WS-0US64280.
31-JUN-2001; 2001WS-0US64280.
31-JUN-2001; 2001WS-0US64280.
31-JUN-2001; 2001WS-0US64280.
31-JUN-2001; 2001WS-0US64280.
31-JUN-2001; 2001WS-0US618585.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACA63666 standard; DNA; 24 BP
ACA63666 standard; DNA; 24 BP
AC
ACA63666;
XX
X
    16-JUN-2003 (first entry)
XX
Whuman; secreted and transmemb
XX
XW
Human; secreted and transmemb
XX
XW
Antidabetic; gene therapy; in antidabetic; gene therapy; XW
Antidabetic; gene therapy; Antidabetic; sancer
XX
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 85
        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
```

. .

ö

Fri Jul 30 10:32:03 2004

```
97US-0064249P
97US-0064249P
97US-0064249P
97US-0074450P
98US-0077641P
98US-0077641P
98US-0077641P
98US-0077641P
98US-0077641P
98US-0078014P
98US-0078334P
98US-0080165P
98US-0080137P
98US-0080137P
98US-0080137P
98US-0080137P
98US-0080137P
98US-0080137P
98US-0080137P
98US-0080137P
98US-0080137P
98US-0080129P
98US-0080129P
98US-0080129P
98US-0080129P
98US-0081195P
98US-008129P
98US-008129P
98US-008129P
98US-008129P
98US-008129P
98US-008129P
98US-008129P
98US-008129P
98US-008141P
98US-008141P
98US-008141P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-DEC-1999; 99W0-US031274.
05-JAN-2000; 2000WO-US000219.
06-JAN-2000; 2000WO-US000277.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US005190
99WO-US010733
                                                                             24-OCT-2001; 2001US-00999832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US012252
                         US2002192706-A1
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-MAR-1998;
31-MAR-1998;
01-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-APR-1998;
22-APR-1998;
22-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1-APR-1998;
                                                                                                      17-OCT-1997
                                                                                                                               13-NOV-1997
21-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-APR-1998
09-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUN-1999
                                                  19-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-NOV-1998
```

```
The invention describes an isolated nucleic acid (I) comprising, or which is at least 80 % sequence identity to, or the full-length coding sequence of, any of 118 300-2100 nucleotide sequences, which encodes its corresponding PRO polypeptide selected from 118 100-700 amino acid sequences, all given in the specification. The nucleic acids and polypeptides are useful for treating inflammatory diseases, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, cancer, or diabetic complications. The nucleic acids are useful as hybridisation probes, in chromosome and gene mapping, and in generating antiseanse RNA or DNA. The polypeptides are useful as pharmaceuticals, diagnostics, biosensors or bioreactors. Both are useful it issue typing. This sequence represents a novel human secreted and transmembrane PRO polypeptide associated primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New secreted and transmembrane nucleic acids and polypeptides, designated as PRO, useful for treating inflammation, organ failure, atherosclerosis, cardiac injury, infertility, birth defects, premature aging, AIDS, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Kljavin IJ, Kuo SS, Napier M, Paoni NF, Roy MA, Shelton DL;
Stewart TA, Tumas D, Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 24 BP; 5 A; 6 C; 9 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 40; Page 146; 453pp; English.
                                                                                                                                                                                                       02-UJN-2000; 2000MO-USD15264.
28-UJL-2000; 2000MO-USD15264.
24-AUG-2000; 2000MO-USD23128.
01-DEC-2000; 2000MO-USD32678.
20-DEC-2000; 2000MO-USD34956.
28-FEB-2001; 2001MO-USD9552.
25-MAX-2001; 2001MO-USD17692.
01-JJN-2001; 2001MO-USD17600.
29-JJN-2001; 2001MO-USD17600.
29-JJN-2001; 2001MO-USD17600.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-328860/31.
06-JAN-2000;
11-FEB-2000;
24-FEB-2000;
24-FEB-2000;
02-MAR-2000;
11-MAR-2000;
13-MAR-2000;
17-MAR-2000;
17-MAY-2000;
17-MAY-2000;
22-MAY-2000;
23-MAY-2000;
23-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer.
```

o;

Gaps

; 0

Query Match
1.9%; Score 15.6; DB 1; Length 24;
Best Local Similarity 81.8%; Pred. No. 2.3e+02;
Matches 18; Conservative 0; Mismatches 4; Indels

403 CCCTGCTCCAGCAGGCTCTCCG 424 CCCTGTGCCAGTAGGATCTCCG 3

ò

24

ACA71830/c ID ACA71830 standard; DNA; 24 BP

RESULT 86

11-AUG-2003 (first entry)

ACA71830;

ر. ع

```
17-OCT-1997
13-NOV-1997
13-NOV-1997
11-NOV-1997
11-NOV-1997
11-NAR-1998
11-NAR-1998
11-NAR-1998
11-NAR-1998
12-NAR-1998
12-NAR-1998
20-NAR-1998
20-NAR-1999
10-NAR-1999
10-NAR-1999
11-NAR-1999
11-NAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              erythropoietin; colony stimulating factor; cancer; colorectal carcinoma apoptosis related condition; AIDS; amyotrophic lateral sclerosis; apoptosis related condition; AIDS; amyotrophic lateral sclerosis; inflammatory disease; athma; atherosclerosis; neurodegenerative disease; pastrointestinal disorder; Alzheimer's disease; Parkinson's disease; hypertension; myocardial ischaemia; kidney disease; carcinogenesis; glomerulonephritis; lung disease; pulmonary hypertension; precelampsia; bronchial asthma; gastric ulcer; renal failure; cardiovascular disease; inflammatory bowel disease; reproductive disorder; premature labour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ds; thrombolytic agent; interferon; interleukin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polypeptide associated
97US-0062250P

97US-006431P

97US-0066316P

97US-0066364P

98US-0077450P

98US-0077641P

98US-0077641P

98US-0077641P

98US-0077691P

98US-00778910P

98US-00778910P

98US-00798936P

98US-007992664P

98US-007992664P

98US-0079923P

98US-00168413

98US-00168413

98US-00168413

98US-00168413

98US-00168413

99US-0026466

99US-0026466

99US-0026466

99US-0026466

99US-0026466

99US-00361131

99US-00380138

99US-00380138

99US-00380138

99US-00380138

99US-00380138

99US-00380138

99US-018028551

99US-0180380139

99US-0180381243

99US-0180381243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00978192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  interleukin; cytokine;
cancer; colorectal carcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disease;
```

```
06-JAN-2000)
11-FEB-2000)
11-FEB-2000)
124-FEB-2000)
124-FEB-2000)
12-MAR-2000)
12-MAR-2000)
13-MAY-2000)
13-MAY-2000)
13-MAY-2000)
12-MAY-2000)
12-MAY-2000)
12-MAY-2000)
12-MAY-2000)
12-MAY-2000)
12-MAY-2000)
12-MAR-2001)
12-MAR-2001)
12-MAR-2001)
12-MAY-2001)
12-MAY-2001)
12-MAY-2001)
12-MAY-2001)
12-MAY-2001)
12-MAY-2001)
12-MAY-2001)
11-UN-2001)
11-UN-2001)
11-UN-2001)
11-UN-2001)
11-UN-2001)
12-UN-2001)
                                                                                                                                                                                                                                                                                                             2000WO-US020710
2000WS-US023328
2000US-00709238
2000US-00723749
2000US-00747259
2000US-US034956
2001US-US036520
2001US-US0866720
2001US-US09552
2001US-US09553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US004341.
2000WO-US005004.
2000WO-US005841.
2000WO-US006319.
2000WO-US00635.
2000WO-US00843.
2000WO-US00843.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US014042
2000WO-US014941
2000WO-US015264
```

GENENTECH INC.

Ashkenazi A Ferrara N, F. Inddard A, Goo. Win IJ, Kun Tt TA, AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
, Godowski PJ, Grimaddi JC, Gurney AL, Hillan KJ;
J, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelt
A, Tumas D, Williams PM, Wood WI; Shelton 멅

2003-328499/31

New isolated PRO polypeptides e.g. PRO213, PRO274 and PRO300, pharmaceuticals, diagnostics, biosensors and bioreactors, for modulators of receptor-ligand interactions. for use as identifying

SEQ ID NO 246; 55pp; English.

The invention relates to an isolated secreted and transmembrane CC polypeptide, designated as PRO polypeptide. The PRO polypeptide is useful CC in PRO polypeptide detection methods. The PRO polypeptide is useful for CC linking a bioactive molecule to a cell. The PRO polypeptide or an antibody against it is useful for modulating a bioactive molecule to a cell. The PRO polypeptide or an CC cell. The PRO polypeptide is useful in industrial applications including pharmaceuticals, diagnostics, biosensors and bioreactors. The PRO polypeptide is useful in industrial applications including pharmaceuticals, diagnostics, biosensors and bioreactors. The PRO polypeptide is useful for treating disease such as corrected interleukin, erythropoletin, colony stimulating factor and other CC polypeptide is useful for treating disease such as CC cancer e.g. colorectal carcinoma; apoptosis related conditions e.g. AIDS, CC amystrophic lateral sclerosis; inflammatory disease e.g. asthma, CC atheroselevosis; neurodegenerative disease e.g. Alzheimer's disease, CC markinson's disease; cardiovascular disease e.g. phypertension and CC myocardial ischaemia; kidney disease e.g. renal failure and componentits; lung disease e.g. pulmonary hypertension, bronchial asthma; gastrointestinal disorders e.g. gastric ulcer and inflammatory constituents are cardiovascular disease. The presents sequence represents a PRO properties associated oligonucleotide of the invention. Note: The

```
RESULT 87
ABX92470/c
ID ABX92470;
XX ABX92470;
XX ABX92470;
XX ABX92470;
XX DEFINATION of ABX92470;
XX ABX92470;
XX ABX92470;
XX ABX92470;
XX Human PRO
XX Human PRO
XX Human PRO
XX Genetic di
XW Gen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SSSSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 18
  21-NOV-1997
11-MAR-1998
11-MAR-1998
11-MAR-1998
11-MAR-1998
12-MAR-1998
12-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
27-MAR-1998
28-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; PRO polypeptide; secreted and transmembrane protein; immune disorder; diabetes; hyper-insulinaemia; hypo-insulinaemia; cardiac insufficiency; nervous system disorder; kidney disorder; bone disorder; cartilage disorder; arthritis; tumour; wound healing; genetic disorder; cytostatic; antidiabetic; antiinflammatory; antiarthritic; anti-tumour; vulnerary; antianaemic; dermatological; cardiant; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence data for this patent did not form part of the printed specification but was obtained in electronic format directly from USPTO at seqdata.uspto.gov/sequence.html?DocID=20020177553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-MAY-1981;
17-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-0CT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US2002169284-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRO DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTGCTCCAGCAGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.9%;
nilarity 81.8%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00978697
  81US-00267213
97US-00642459
97US-0065311P
97US-0065311P
97US-0065311P
97US-0065311P
98US-0077641P
98US-0077641P
98US-0077649P
98US-00778886P
98US-0078936P
98US-0078936P
98US-007995664P
98US-00799664P
98US-0079664P
98US-00799664P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ຫ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                primer SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 15.6; D
Pred. No. 2.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Η,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     246.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŭ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

```
22-DEC-1998
05-MAR-1999
10-MAR-1999
11-MAR-1999
11-MAR-1999
11-MAR-1999
11-MAR-1999
12-AUG-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
26-DEC-1999
30-DEC-1999
30-DEC
                                                                                                                                                                                                                                                                      (GETH )
                                                                                                                                                                                                                                                                      GENENTECH INC.
                                                                                                                                                                                                                                                                                                      99WO-US028565
99WO-US031274
299WO-US031274
2000WO-US000277
2000WO-US000276
2000WO-US000376
2000WO-US004341
2000WO-US005841
2000WO-US006341
2000WO-US006341
2000WO-US006341
2000WO-US006341
2000WO-US014941
2000WO-US014941
2000WO-US015264
2000WO-US0332678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-00284291.
99US-00311832.
99WO-US010733.
99WO-US012252.
99US-00380137.
99US-00380138.
99US-00380143.
99WO-US028313.
```

2003-288163/28.

Ashkenazi A, Ferrara N, Goddard A, Kljavin IJ, Stewart TA,

A, Baker KP, B
Filvaroff E,
Godowski PJ,
Kuo SS, Napi

IP, Botstein D, Desnoyers L, Eaton D;
E, Fong S, Gao W, Gerber H, Gerritsen ME;
PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Napier MA, Pan J, Paoni NF, Roy MA, Shelto Williams PM, Wood WI;

Shelton

DL;

Ą

Novel secreted and transmembrane polypeptides and encoding them useful for treating cancer, kidney cartilage disorders and immune deficiencies. diseases, polynucleotides

Example 40; Page 148; 459pp; English

Argan.

Service of the servic

```
RESULT 88
ACA66211/c
ID ACA662
XX ACA662
AC ACA662
XX ACA662
XX ACA662
XX Human;
XW Human;
XW Inelation
XW In
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CC The present invention relates to the isolation of novel human PRO CC polypeptides, and the polynucleotide sequences encoding them. The PRO CC polypeptides are secreted and transmembrane proteins. The PRO CC polypeptides are useful for detecting other PRO polypeptides, for linking biological activities of cells expressing PRO polypeptides, for modulating CC biological activities of cells expressing PRO polypeptides, and for for centrifying agonists or antagonists. The bioactive molecule maybe a convertion, radiolabel or antibody, and causes appitudes or death of the cell. The PRO polypeptides are useful for treating immune disorders, diabetes or hyper- or hypo-insullnaemia, cardiac insufficiency, nervous system CC disorders, kidney disorders, bone and cartilage disorders or arthritis, cc tumours, and wound healing. The polynucleotide sequences encoding PRO polypeptides are useful as hybridisation probes, in chromosome and gene capping, in the generation of antisense RNA and DNA, in the preparation of PRO polypeptides, for generating transgenic animals or knockout canimals, for the generatic analysis of individuals with genetic disorders, and in gene therapy. The present sequence represents a PCR primer used in the examples of the present invention. Note: The sequence data for this can sequence and septent was obtained in electronic format directly from the USPTO web site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         malignancy; cancer; ovax
leukaemia; lymphoma; inf
infertility; premature a
renal disease; arthritis
hepatitis; multiple scle
                   17-OCT-1997
03-NOV-1997
13-NOV-1997
13-NOV-1997
10-NAR-1998
11-NAR-1998
11-NAR-1998
11-NAR-1998
11-NAR-1998
12-NAR-1998
12-NAR-1998
12-NAR-1998
12-NAR-1998
12-NAR-1998
20-NAR-1998
20-NAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                               02-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2003004102-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; ss; PCR; secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human secreted/transmembrane protein PRO871 PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-JUN-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACA66211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACA66211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 24 BP;
                                                                                                                                                                                                                                                                                                                                                                                  15-0CT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           403 CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24 CCCTGTGCCAGTAGGATCTCCG 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ch 1.9%; l similarity 81.8%; l8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; PCR; secreted protein; transmembrane protein; PRO; primer; ; cancer; ovarian cancer; colorectal cancer; sarcoma; ... 'lymphoma; inflammatory disease; necrosis; atherosclerosis; ... 'y; premature aging; psoriasis; inflammatory disease; ase; arthritis; immune-mediated alopecia; stroke; encephalitis; multiple sclerosis; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                  2001US-00978189
97US-0062250P.
97US-006311P.
97US-0063364P.
97US-0063364P.
98US-0077641P.
98US-0077641P.
98US-0077641P.
98US-0077804P.
98US-007801P.
98US-007801P.
98US-007891P.
98US-0078939P.
98US-0079294P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 15.6; D
Pred. No. 2.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15.6; DB 1
No. 2.3e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
  05-JAN-1999
08-MAR-1999
10-MAR-1999
11-MAR-1999
11-MAR-1999
11-MAR-1999
11-MAR-1999
12-MAR-1999
12-MAR-1999
12-MAR-1999
13-MAR-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
30-DEC-1999
30-MAR-2000
21-MAR-2000
21-MAR-2000
22-MAR-2000
22-MAR-2000
22-MAR-2000
21-MAR-2000
21-MAR-2001
21-MAR-2001
22-MAR-2001
22-MAR-2001
21-MAR-2001
22-MAR-2001
22-MAR-2001
23-MAR-2001
23-MAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-OCT-1998;
02-NOV-1998;
06-NOV-1998;
20-NOV-1998;
07-DEC-1998;
22-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-JUN-
07-OCT-
07-OCT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1-1998;
1-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US031243.
99WO-US031274.
2000WO-US0002127.
2000WO-US000277.
2000WO-US000376.
2000WO-US003565.
2000WO-US0034341.
                   2001US-00854208
2001US-00854280
2001US-00872035
2001US-00872035
2001US-00872035
2001US-00874503
2001US-00874503
2001US-00886342
2001US-00886342
2001US-0US96536
                                                                                                                                                                                                                                            2001WO-US006520.
2001US-00816744.
2001US-00816920.
2001WO-US009552.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US006319.
2000WO-US007532.
2000WO-US008439.
2000WO-US013705.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US015264.
2000WO-US020710.
2000WO-US023328.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WO-US014042.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US005004
2000WO-US005601
2000WO-US005841
                                                                                                                                                                                                                                                                                                                                       2000WO-US034956
                                                                                                                                                                                                                                                                                                                                                          2000WO-US032678
2000US-00747259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US005190
99US-00267213
99US-00284291
99US-00311832
99WO-US012752
99WO-US012252
99US-00380137
99US-00380137
99US-00380138
99US-00380142
99US-00380142
99WO-US0283551
99WO-US028555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-00254465.
99WO-US005028.
99US-00265686.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-00202054.
98US-00218517.
99WO-US000106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0079728P
98US-0079786P
98US-0079920P
98US-0079923P
98US-00105413
98US-00168978
98WO-US021141
98WO-US021141
98WO-US02154
98US-00187368
98WO-US024855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0079656P.
98US-0079663P.
98US-0079664P.
98US-0079689P.
```

밁 S

```
RESULT 89
ACC69700/c
ID ACC697
XX ACC697
AC ACC697
XX
DT 21-JUL
XX
DE Mouse
XX
                                                                                                                                                                                                                                                                                                                                                The invention relates to a new isolated nucleic acid molecule comprises a sequence with at least 80% identity to: (a) a nucleotide encoding any of 94 PRO polypeptides whose sequences are fully defined in the compectation; or (b) any of 94 nucleotide sequences fully defined in the compectation; or the full length coding sequence of any these 94 cmucleotide sequences. Also included are an isolated PRO polypeptide nucleotide sequence included are an isolated PRO polypeptide having complypeptide sequences cited above (or an isolated PRO polypeptide having the specification; (b) the PRO polypeptide, or (c) an extracellular domain of the PRO polypeptide, or (c) an extracellular domain of the PRO polypeptide, with or cacid molecule, a chimaeric molecule comprising the PRO polypeptide, with or acid molecule, a chimaeric molecule comprising the PRO polypeptide, with or cacid molecule, a chimaeric molecule comprising the PRO polypeptide fused to a heterologous amino acid sequence and an anti-PRO antibody. The PRO polypeptides or polymeptides or polymeptides or polymeptides or polymeptides fused to a heteroscian state of the sequence and an anti-PRO antibody. The PRO colorectal cancer, sarcoma, leukaemia or lymphoma), inflammatory disease, renal disease, arthritis, immune-mediated alopecia, stroke, encephalitis, hepatitis, or multiple sclerosis in mammals. The PRO polypeptides are useful in drug screening, particularly as targets of the presence of these diseases, and in the diagnostic determination of the presence of these diseases, and in the diagnostic contentification. The PRO genes are useful as hybridisation probes, or for convex are propolymeptides are useful as hybridisation probes, or for convex are useful as phormacounties are convex encoding a pro polymeptide.
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                           Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ferrara
Goddard
Kljavin
Stewart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New genes and secreted and transmembrane polypeptides (e.g. PRO337 or PRO1559), useful for treating or diagnosing e.g. cancers, atherosclerosis, infertility, stroke, encephalitis, hepatitis or multiple
                    Mouse CLASP-2
                                                      21-JUL-2003
                                                                                       ACC69700
                                                                                                                        ACC69700
                                                                                                                                                                                                                                                                                                                                              Sequence 24 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 40; Page 147; 460pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sclerosis in mammals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-341189/32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ashkenazi AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-JUL-2001; 2001US-00918585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH ) GENENTECH INC
                                                                                                                                                                                                                                           403
                                                                                                                                                                                                            24
                                                                                                                                                                                                                                                                              18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TA,
                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                          standard;
                                                                                                                                                                                                                                           cccrecrecaecaecrerece 424
                                                                                                                                                                                                              CCCTGTGCCAGTAGGATCTCCG 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AJ, Baker KP,
Filvaroff E,
Godowski PJ,
, Kuo SS, Nap,
, Tumas D, Wi
                                                                                                                                                                                                                                                                              Conservative
                                                      (first entry)
                    PCR primer SEQ ID NO:79
                                                                                                                                                                                                                                                                                                                                                5 A;
                                                                                                                                                                                                                                                                                                                                                                                  PRO
                                                                                                                          DNA;
                                                                                                                                                                                                                                                                                            1.9%;
                                                                                                                                                                                                                                                                                                                                                                                polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Napier MA, Pa, Williams PM,
                                                                                                                                                                                                                                                                                                                                                6 C; 9 G; 4 T; 0 U; 0 Other;
                                                                                                                          24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Botstein D, Desnoyers L,
Fong S, Gao W, Gerber H
Grimaldi JC, Gurney AL,
ier MA, Pan J, Paoni NF,
                                                                                                                          뫄
                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                           Pred.
                                                                                                                                                                                                                                                                                                Score 15.6;
Pred. No. 2
                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wood WI;
                                                                                                                                                                                                                                                                                                .3e+02;
                                                                                                                                                                                                                                                                                                                DB 1; Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             L, Eaton DL;
H, Gerritsen ME;
, Hillan KJ;
                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Roy MA,
                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shelton
                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DL;
                                                                                                                                                                                                                                                                                 0
```

```
RESULT 90
ADA24785/c
XXEXEX
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                  CC ACC69640 to ACC69648 encode the cadherin-like asymmetry proteins (CLASPs)
CC given in ABR43625 to ABR43633. CLASP sequences have immunosuppressive,
CC antiinflammatory, antirheumatic, antiarthritic, dermatological and
CC nephrotropic activities. Compositions comprising a CLASP-1 protein can be
CC used for treating or preventing a CLASP-1 mediated disease, particularly
CC an autoimmune disease caused or exacerbated by increased activity of TH1
CC (helper T) cells. CLASP polynucleotides can be used as probes or primers
CC for detecting CLASP polynucleotides can be used as probes or primers
CC for detecting CLASP expression, for screening CLASP agonists or
CC (antagonists, for creating transgenic animals, chromosome mapping,
CC identifying animals from minute biological samples, polymorphic markers
CC for forensic analysis, and as reagents for paternity testing. CLASP
CC polynucleotides or polypeptides are useful in treating or preventing
CC autoimmune diseases (e.g. Addison's disease, rheumatoid arthritis, or
CC (e.g. sepsis, arthritis or nephritis), or infectious disease, inflammation
CC (e.g. sepsis, arthritis or nephritis), or infectious diseases. ACC69649
CC exemplification of the present invention
                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New cadhesin-like asymmetry protein (CLASP) polypeptides and polymucleotides, useful for treating or preventing autoimmune diseases, organ rejection or graft-versus-host disease, inflammation, or infectious
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cadherin-like asymmetry protein; immune response; immunosuppress; antiinflammatory; antiirheumatic; antiarthitic; dermatological; nephrotropic; autoimmune disease; Addison's disease; dermatitis; rheumatoid arthritis; organ rejection; graft-versus-host disease; inflammation; sepsis; arthritis; nephritis; infectious disease;
                                                                20-NOV-2003
                                                                                                    ADA24785;
                                                                                                                                     ADA24785
                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 2; Page 118; 398pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-354593/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lu PS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-AUG-2001;
15-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-AUG-2002; 2002WO-US024482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; mouse; CLASP membrane protein; CLASP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ARBO-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003025120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCR primer;
                                                                                                                                                                                                                                                            395 CACACACACCCTGCTCCAGCAG 416
                                                                                                                                                                                                                            24 CATCCGCACACTGCTCCAGCAG 3
                                                                                                                                                                                                                                                                                             l Similarity
18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Garman JD,
                                                                                                                                       standard; DNA;
                                                                                                                                                                                                                                                                                                                                                              24 BP; 4 A; 4 C; 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-0310028P.
2001US-00978244.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VITA
                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Candia AF
                                                                                                                                                                                                                                                                                                              1.9%;
                                                                                                                                       24
                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                    ວ
                                                                                                                                                                                                                                                                                                                Score 15.6;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                    ហ
                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                    T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                  2.3e+02
                                                                                                                                                                                                                                                                                                                                DB 1; Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cell surface molecule; onse; immunosuppressive;
                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                 0,
```

Human; secreted Secreted and

transmembrane PRO protein associated primer #121

0

and transmembrane protein; PRO; gene; ss; tissue

1086 1086 1086 1086 1086 1086 1086 1086				MAR-1998 MAR-1998 MAR-1998 MAR-1998 MAR-1998 MAR-1998 MAR-1998 MAR-1998 MAR-1998 MAR-1998	2001, 2001U 1997; 97U 1997; 97U 1997; 97U 1997; 97U 1998; 98U 1998; 98U 1998; 98U	chromosome identification; vaccine; cancer; retinal disorder; sports-related joint disorder; osteocarthritis; rheumatoid arthritis; wound healing; obesity; diabetes; hearing loss; cardiac insufficiency disorder; kidney disorder; nervous system disorder; haemoglobin associated disorder; expressed sequence tag; EST. Homo sapiens. US2003050241-Al.
06-JAN-2000; 20 06-JAN-2000; 20 11-FEB-2000; 20 18-FEB-2000; 20 24-FEB-2000; 20 02-MAR-2000; 20 11-MAR-2000; 20	30-NOV-1999; 02-DEC-1999; 02-DEC-1999; 16-DEC-1999; 30-DEC-1999; 30-DEC-1999;	28-APR-1999; 14-MAY-1999; 14-MAY-1999; 02-JUN-1999; 16-JUN-1999; 23-JUN-1999; 07-JUL-1999; 26-JUL-1999; 28-JUL-1999; 29-OCT-1999;	11-SEP-1998; 07-OCT-1998; 20-NOV-1998; 20-NOV-1998; 22-DEC-1998; 23-DEC-1999; 05-JAN-1999; 08-MAR-1999; 10-MAR-1999; 11-MAR-1999; 21-APR-1999; 21-APR-1999;	PR 15-MAY-1998 98US-0085704 PR 18-MAY-1998 98US-008603 PR 22-MAY-1998 98US-008633 PR 22-MAY-1998 98US-0086414 PR 22-MAY-1998 98US-0086410 PR 22-MAY-1998 98US-0086400 PR 22-MAY-1998 98US-0087086 PR 28-MAY-1998 98US-0087106 PR 28-MAY-1998 98US-0087098 PR 28-MAY-1998 98US-0091010 PR 26-JUN-1998 98US-0091010 PR 26-JUN-1998 98US-0091010 PR 01-JUL-1998 98US-0091663 PR 01-JUL-1998 98US-0091663	13-MAY-1998; 13-MAY-1998; 13-MAY-1998; 15-MAY-1998; 15-MAY-1998; 15-MAY-1998; 15-MAY-1998; 15-MAY-1998; 15-MAY-1998;	29-APR-1998; 30-APR-1998; 05-MAY-1998; 06-MAY-1998; 06-MAY-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998;

```
RESULT 91
ACD29812/c
ID ACD298
XX ACD298
AC ACD298
XX Novel
XX Novel
XX Novel
XX Novel
XX Novel
XX Human;
KW periph
KW periph
KW periph
KW Refusu
KW Krabbe
KW Crabbe
KW Degeri
KW Degeri
                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 18; Conserv
             Human; secreted and transmembrane protein; PRO; cell death peripheral neuropathy; diabetic peripheral neuropathy; AIDS-associated neuropathy; Charcot-Marie-Tooth disease; Refusum's disease; Abetalipoproteinaemia; Tangier disease; Krabbe's disease; Metachromatic leukodystrophy; Pabry's diberother sources syndrome; chromosome mapping.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ashkenazi AJ
Ferrara N,
Goddard A,
Kljavin IJ,
Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAR-2000;

17-MAY-2000;

22-MAY-2000;

30-MAY-2000;

28-JUL-2000;

24-AUG-2000;

24-AUG-2000;

24-AUG-2000;

20-DEC-2000;

20-DEC-2000;

28-FEB-2001;

28-FEB-2001;

25-MAY-2001;

25-MAY-2001;

20-JUN-2001;

20-JUN-2001;

20-JUN-2001;

20-JUN-2001;

20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention describes an isolated secreted and transmembrane (PRO) polypeptide (I). PRO337 polypeptide is useful for detecting PRO4933 polypeptide in a sample, and vice versa, PRO725, PRO700 and PRO739 are useful for detecting PRO1559 polypeptide in a sample, and PRO1559 is useful for detecting PRO1559 pro700 and PRO739 in a sample. PRO4933 is useful for inking a bioactive molecule to a cell expressing a PRO337 polypeptide, and PRO337 is useful for linking a bioactive molecule to a cell expressing a PRO337 polypeptide. PRO4933 polypeptide. PRO4933 polypeptides are useful for linking a bioactive molecule to a cell expressing a PRO735 pro700 and PRO739 polypeptide, and PRO335, PRO700 and PRO739 polypeptides are useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           membrane of cells
                                                                                                                                                                                 08-SEP-2003
                                                                                                                                                                                                                                                 ACD29812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          isolated PRO polypeptides for example extracellular, secreted and brane bound proteins, useful for modulating the biological activities cells and for treating, for example diabetes, cancer, rheumatoid hritis, and hearing loss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2003-521814/49.
                                                                                                                                                                                                                                                                                                                                                                403
                                                                                                                                                                                                                                                                                                                               24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENENTECH
                                                                                                                                                                                                                                                 standard; DNA; 24
                                                                                                                                                                                                                                                                                                                               CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                   CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen
, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
J, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, St
A, Tumas D, Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US008439
2000WO-US014042
2000WO-US014941
2000WO-US015264
2000WO-US023328
2000WO-US023328
2000WO-US0332678
2000WO-US034956
2000WO-US034956
2001WO-US017092
2001WO-US017092
2001WO-US017092
2001WO-US017092
2001WO-US017092
2001WO-US017093
2001WO-US017093
2001WO-US017093
2001WO-US017093
2001WO-US017093
2001WO-US017093
2001WO-US017093
2001WO-US017093
2001WO-US017093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Page 153; 461pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INC.
                                                                                                                                                                                                                                                                                                                                                                                                              1.9%;
                                                                                                                                                and transmembrane protein related primer #119.
                                                                                                                                                                                                                                                 ВP
                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                            Score 15.6; D: Pred. No. 2.3e. 0; Mismatches
                                                                                                                                                                                                                                                                                                                               w
                                                                                                                                                                                                                                                                                                                                                                                                              DB 1;
.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                 4;
                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                 mapping; gene therapy;
                                                                                                                 death;
                                                                                                                                                                                                                                                                                                                                                                                                                               24;
                                                     disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              n KJ;
Ma, Shelton J
                                                                                                                    neuropathy;
                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               区
()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DL;
                                                                                                                                                                                                                                                                                                                                                                                                 0;
      15-APR-1998
15-APR-1998
15-APR-1998
21-APR-1998
21-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
23-APR-1998
23-APR-1998
29-APR-1998
30-APR-1998
30-APR-1998
30-APR-1998
30-APR-1998
30-APR-1998
30-APR-1998
30-APR-1998
30-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13 MAR-1998

20-MAR 1998

20-MAR 1998

20-MAR 1998

20-MAR 1998

25-MAR 1998

25-MAR 1998

27-MAR 1998

27-MAR 1998

27-MAR 1998

27-MAR 1998

31-MAR 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-OCT-1997;
03-NOV-1997;
13-NOV-1997;
21-NOV-1997;
10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
11-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                               09-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003050240-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-00978403
   9803-0079689P

98US-0079786P

98US-0079920P

98US-0080105P

98US-0080115P

98US-00801337P

98US-0080337P

98US-0080337P

98US-0081079P

98US-0081079P

98US-0081079P

98US-0081195P

98US-0081195P

98US-0081817P

98US-00818195P

98US-00818195P

98US-00818195P

98US-0082700P

98US-0083349P

98US-008349P

98US-008349P

98US-008345P

98US-008345P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0078004P.
98US-0078886P.
98US-0078936P.
98US-0078939P.
98US-0079294P.
98US-0079663P.
98US-0079664P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0077632P.
98US-0077641P.
98US-0077649P.
98US-0077791P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0064249P.
97US-0065311P.
97US-0066364P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0077450P
```

밁 Ś

· - - Mr. 1-07 ...

5,21

京本の 一日 田田 大

```
RESULT 92
ADA12446/c
ID ADA124
XX ADA124
XX ADA124
XX Drimer
XX Primer
XX Cardia
XX Ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-AUG-2000;
01-DEC-2000;
20-DEC-2000;
28-FEB-2001;
22-MAX-2001;
25-MAY-2001;
01-JUN-2001;
20-JUN-2001;
29-JUN-2001;
30-JUL-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention describes an isolated, secreted and transmembrane polypeptide, termed PRO polypeptide (I). (I) is useful for detecting PRO4993, PRO337, PRO1559, PRO725, PRO700 or PRO739 polypeptide, and for PRO4993, PRO337, PRO1559, PRO725, PRO700 or PRO739 polypeptide. Inking a bioactive molecule to a cell expressing the above polypeptides. The bioactive molecule is a toxin, radiolabel or an antibody and causes cell death. (I) is useful as therapeutic agent, in medical and industrial applications e.g. for treating neuropathy, especially peripheral neuropathy, diabetic peripheral neuropathy, associated neuropathy, Charcot-Marie-Tooth disease, Refusum's disease, Abetalipoproteinaemia, Tangier disease, Krabbe's disease, Metachromatic leukodystrophy, Fabry's
                                                                                                                                                                                                                                                                                                                                   primer; ss; inflammatory disease; organ failure; atherosclerosis; cardiac injury; infertility; birth defect; premature aging; AIDS; diabetic complication; tissue typing; human; PCR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel secreted and transmembrane polypeptide for modulating biological activity of cell expressing the polypeptide, identifying agonists or antagonists of polypeptide, and as molecular weight markers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL; Ferrara N, Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME; Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Kljavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelt Stewart TA, Tumas D, Williams PM, Wood WL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-NOV-2003
                                                                                                             17-OCT-2001;
                                                                                                                                                                                                                        US2003055216-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADA12446;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADA12446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 40; Page 148; 459pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GETH )
                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2003-503575/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                             secreted/transmembrane polypeptide PRO871 primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.9%; similarity 81.8%; 18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US023328.

2000WO-US032678.

2000WO-US034956.

2001WO-US006520.

2001WO-US017092.

2001WO-US017092.

2001WO-US017800.

2001WO-US019692.

2001WO-US019692.

2001WO-US0196885.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                             2001US-00978824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ₽₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 15.6; DB 1; Pred. No. 2.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                             premature aging; AIDS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                   #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shelton
                                                                                                                                                                                                                                                                                                                                                                      cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
```

21-MAY-1996; 17-OCT-1997; 03-NOV-1997;

96US-0018049P. 97US-0062250P. 97US-0064249P.

07-MAY-1998;
07-MAY-1998;
07-MAY-1998;
07-MAY-1998;
07-MAY-1998;
07-MAY-1998;
13-MAY-1998;
13-MAY-1998;
15-MAY-1998;
16-JUN-1998;
16-JUN-1998;
16-JUN-1998;
16-JUN-1998;
17-MAY-1998;
18-MAY-1998;
18-MAY-1998;
18-MAY-1998;
18-MAY-1998;
18-MAY-1998;
18-MAY-1998;
19-MAY-1998;
19-MAY-1999;
10-JUN-1999;
10-JUN-2000;
10-JUN-2000;
11-JUN-2000;
11-JU

98US--0084600 98US-0084639P 98US-0084639P 98US-0084649P 98US-0085339P 98US-0085573P 98US-0085573P 98US-0085573P 98US-0085573P 98US-0085573P 98US-0085573P 98US-0086430P 98US-0086703P 98US-0086703P 98US-0086430P 98US-0086430P 98US-0086430P 98US-0086430P 98US-0086430P 98US-0086430P 98US-0086430P 98US-0086430P 98US-0086430P 98US-003703P 98US-003703P 98US-0031039 98US-0131362P 99US-01314658P 99US-01314658P 99US-01314688P 99US-0145698P 99US-0150031244 2000WO-US0033124 2000WO-US0033124 2000WO-US0033124 2000WO-US003341 2000WO-US003341 2000WO-US003341 2000WO-US003541 2000WO-US003541 2000WO-US003541 2000WO-US003543 2000WO-US00354 2000WO-US00354 2000WO-US00354

		·
		The state of the s
קי קיק ג קיק קיק קיק קיק קיק קיק קיק קיק ג א א א א א א א א א א א א א א א א א א א	אים יי אים יי אים אים אים יי אים אים אים אים אים אים א	אם עם
10000000000000000000000000000000000000	20000000000000000000000000000000000000	
- DEC - DEC	MAR MAR MAR MAR MAR MAR MAR MAR MAR MAR	15-MAY 15
000000000000000000000000000000000000000	10.10.10.10.10.10.10.10.10.10.10.10.10.1	
000000000000000000000000000000000000000		200 - 200 -
SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	03801038010380003800038000038000038000003800000000	008557 008558 008568 008568 00857 008639 008641 008641 008641 008648 008
		60114.0 00 00 00 00 00 00 00 00 00 00 00 00 0

\times \t

13-NOV-1997
21-NOV-1997
21-NOV-1997
21-NOV-1997
11-MAR-1998
11-MAR-1998
11-MAR-1998
11-MAR-1998
12-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
21-MAR-1998
27-MAR-1998
27-MAR-1998
31-MAR-1998

97US-0065311P 97US-007634P 98US-0077632P 98US-0077649P 98US-0077649P 98US-00778936P 98US-0078936P 98US-0079656P 98US-0079658P 98US-0079663P 98US-0079663P 98US-007977966P 98US-0080105P 98US-0080105P 98US-0080107P 98US-008117P 98US-008117P 98US-008117P 98US-008129P 98US-008133P 98US-0081333P 98US-0083554P 98US-0083554P 98US-0083554P 98US-008459P 98US-008463PP 98US-0084533PP 98US-0085333PP

THE STATE OF THE S

```
ACD29227/G
ID ACD29227/G
XX ACD29227/G
XX ACD29
XX ACD29
XX Novel
DT 27-Al
XX Human
KW tumoo
KW tumoo
KW sport
KW retir
KW sport
KW card
KW card
KW card
KW card
KW card
KW card
KW rets
KW rets
KW card
KW ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       $\frac{1}{2}$ \times \frac{1}{2}$ \times \frac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-MAY-2000;
23-JUN-2000;
24-AIG-2000;
24-AIG-2000;
24-AIG-2000;
27-NOV-2000;
27-NOV-2000;
20-DEC-2000;
20-DEC-2000;
20-DEC-2000;
21-MAR-2001;
22-MAR-2001;
22-MAR-2001;
22-MAR-2001;
21-MAY-2001;
21-MAY-2001;
21-JUN-2001;
01-JUN-2001;
                                                                                                                                                                                                                               Human; secreted and transmembrane protein; PRO; viral infection; tumour growth; retinal disorder; injury; sight loss; retinitis pigmentosum; age-related macular degeneration; sport-related joint problem; articular cartilage defect; osteoarthritis; rheumatoid arthritis; wound healing; obesity; diabetes; insulinaemia; kidney disorder; mesangial cell function; Berger disease; nephropathy; celiac disease; dermatitis; Crohn disease; neuropathy; cardiac-insufficiency disorder; peripheral neuropathy; diabetic peripheral neuropathy; autonomic neuropathy; reduced motility of the gastrointestinal tract; atony of the uninary bladder; post polio syndrome; Krabbe's disease; Charcot-Marie-Tooth disease; Fabry's disease; Tangier disease; Refsum's disease; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9227/c
ACD29227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACD29227;
                            16-OCT-2001; 2001US-00978585
                                                                                13-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ferrara
                                                                                                                                   US2003049633-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24 CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard; DNA; 24 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AJ, Baker I
, Filvaroff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US014042.
2000WO-US015264.
2000WO-US015264.
2000WO-US020710.
2000WO-US023328.
2000WS-0707923749.
2000WS-07747259.
2000WS-0747259.
2001WS-00816724.
2001US-00816724.
2001US-00816920.
2001US-00854280.
2001WS-00854280.
2001WS-00886382.
2001WS-US021735.
2001WS-US021735.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     secreted and transmembrane protein related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Botstein D, Desnoyers L, Fong S, Gao W, Gerber H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 15.6; D
Pred. No. 2.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1; Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eaton DL;
Gerritsen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
     17-OCT-1997
13-NOV 1997
13-NOV 1997
13-NOV 1997
10-NOV 1997
10-NOV 1997
10-NOR 1998
11-WAR 1998
11-WAR 1998
11-WAR 1998
12-WAR 1998
12-WAR 1998
20-WAR 1998
21-WAR 1998
22-WAR 1998
23-WAR 1998
31-WAR 1998
31-WAR
  98US-0077450P

98US-0077649P

98US-0077649P

98US-0077649P

98US-0077649P

98US-0077991P

98US-0078986P

98US-0079939P

98US-0079639P

98US-0079664P

98US-0079664P

98US-00797979

98US-00797664P

98US-00797979

98US-0080107P

98US-0080109P

98US-0080107P

98US-
```

13-MAY-1998 15-MAY-1998 15-MAY-1998 15-MAY-1998 15-MAY-1998 15-MAY-1998 15-MAY-1998 15-MAY-1998 15-MAY-1998 22-MAY-1998 22-MAY-1998 22-MAY-1998 22-MAY-1998 22-MAY-1998 22-MAY-1998 22-MAY-1998 28-MAY-1998 28-MAY-1998 28-MAY-1998

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAR-2000

17-MAY-2000

17-MAY-2000

22-MAY-2000

20-JUN-2000

28-JUN-2000

28-JUN-2000

28-JUN-2000

28-JUN-2000

29-JUN-2000

20-DEC-2000

21-MAR-2001

11-MAY-2001

11-MAY-2001

11-JUN-2001

01-JUN-2001

05-JUN-2001

05-JUN-2001

05-JUN-2001
  17-OCT-1997
03-NOV-1997
13-NOV-1997
13-NOV-1997
10-NAR-1998
11-NAR-1998
11-NAR-1998
11-NAR-1998
11-NAR-1998
11-NAR-1998
12-NAR-1998
12-NAR-1998
12-NAR-1998
20-NAR-1998
20-NAR-1998
                                                                                                                                                                                                                                       Human; PRO polypeptide; secreted protein; transmembrane protein; cell death; neuropathy; neuropathy related disease; Charcot-Marie-Tooth disorder; Refsum's disease; Krabbe's disease; chromosome mapping; gene mapping; genetic disorder; septic shock; antibacterial; immunosuppressive; neuroprotective; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                            3752/c
ADB73752
                                                                                                                                                                                06-MAR-2003.
                                                                                                                                                                                                   US2003045462-A1.
                                                                                                                                                                                                                                                                                                   Human
                                                                                                                                                                                                                                                                                                                       04-DEC-2003
                                                                                                                                                                                                                                                                                                                                         ADB73752;
                                                                                                                                                            16-0CT-2001;
                                                                                                                                                                                                                      sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                            PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                   18; Conservative
                                                                                                                                                                                                                                                                                                                                                             standard;
                                                                                                                                                                                                                                                                                                   DNA PCR primer #119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US008439.
2000WO-US018439.
2000WO-US014042.
2000WO-US014941.
2000WO-US015264.
2000WO-US023328.
2000WS-US023328.
2000WS-US023349.
2000WS-US0332749.
2000WS-US032674.
2000WO-US032674.
2001WS-US036520.
2001WS-US0854208.
2001WS-US0854208.
2001WS-US01794.
2001WS-US0854208.
2001WS-US017953.
2001WS-US017953.
2001WS-US017953.
2001WS-US017953.
2001WS-US017953.
2001WS-US017953.
2001WS-US017953.
                                                                                                                                                            2001US-00978608
                                                                                                                                                                                                                                                                                                                       (first
  97US-0062250P

97US-0064249P

97US-0065311P

97US-0065311P

97US-0076364P

98US-0077632P

98US-0077641P

98US-0077641P

98US-007791P

98US-007791P

98US-0077891P

98US-007804P

98US-007804P

98US-007804P

98US-007804P
                                                                                                                                                                                                                                                                                                                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.9%;
                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                             24
                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 15.6; DB 1;
Pred. No. 2.3e+02;
0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
```

0

98US-0085339P 98US-0085579P 98US-0085579P 98US-0085589P 98US-0085689P 98US-0085704P 98US-0086709P 98US-0086709P 98US-0086430P 98US-0086430P 98US-0086430P 98US-0086430P 98US-0087108P 98US-0087108P 98US-0087108P 98US-0087108P 98US-0087108P 98US-0018430P 98US-00184211 98US-00184211 98US-00184211 98US-0018710P 98US-0018710P 98US-0018710P 98US-0018710P 98US-0134281 99US-0134281 99US-0131445 99US-01311428 99US-0131141037 99US-01311445 99US-0131145 99US-013115 99US-01

20-NOV-1998; 20-NOV-1998; 07-DEC-1998; 02-DEC-1998; 22-DEC-1998; 23-DEC-1998;

07-OCT-1998 02-NOV-1998 06-NOV-1998 26-JUN-1998; 26-JUN-1998; 01-JUL-1998; 30-JUL-1998;

05-JAN-1999 08-MAR-1999 08-MAR-1999 10-MAR-1999 11-MAR-1999 12-MAR-1999 12-MAR-1999 12-MAR-1999 12-APR-1999 12-APR-1999 21-APR-1999 21-APR-1999 28-APR-1999 28-APR-1999

14-MAY-1999
14-MAY-1999
02-JUN-1999
16-JUN-1999
23-JUN-1999
07-JUL-1999
25-JUG-1999
25-JUG-1999
25-JUG-1999
25-JUG-1999
25-JUG-1999
25-JUG-1999
30-DEC-1999
30-DEC-1999
30-DEC-1999
30-DEC-1999
30-DEC-1999
16-DEC-1999
30-DEC-1999
16-DEC-1999
16-DEC

15-MAY-1998 15-MAY-1998 15-MAY-1998 15-MAY-1998 15-MAY-1998 18-MAY-1998 22-MAY-1998 22-MAY-1998 22-MAY-1998	MAY-MAY-MAY-MAY-MAY-MAY-MAY-MAY-MAY-MAY-	06-MAY-1998; 06-MAY-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998; 07-MAY-1998;	29-APR-1998 29-APR-1998 29-APR-1998 29-APR-1998 29-APR-1998 29-APR-1998 29-APR-1998 29-APR-1998 30-APR-1998 30-APR-1998	15-APR-1998 15-APR-1998 21-APR-1998 21-APR-1998 22-APR-1998 22-APR-1998 22-APR-1998 22-APR-1998 22-APR-1998 23-APR-1998 23-APR-1998 23-APR-1998	01-APR-1998 01-APR-1998 01-APR-1998 01-APR-1998 08-APR-1998 08-APR-1998 09-APR-1998 09-APR-1998 09-APR-1998 15-APR-1998	25-MAR-1998; 27-MAR-1998; 27-MAR-1998; 27-MAR-1998; 27-MAR-1998; 27-MAR-1998; 30-MAR-1998; 30-MAR-1998; 31-MAR-1998; 31-MAR-1998; 31-MAR-1998;
		1 1 1 1 1 1 1 1 1		98US-008193P 98US-008195P 98US-008195P 98US-0082568P 98US-0082569P 98US-0082700P 98US-008270P 98US-0082797P 98US-0082797P 98US-0082797P 98US-0083336P 98US-0083332P		
	1					
א קי קי קי קי קי קי א א א א א א א א א	מ מק מק מק מק	קי קי קי קי קי א א א קי קי א א א א	ל קר על	ָּרָשְׁ עִּיִשְׁ עִּיִשְׁ עִּיִּשְׁ עִּיִּשְׁ עִּיִּשְׁ עִּיִּ גָּאָרֶ עִּיִּשְׁ עִּיִּשְׁ עִּיִּשְׁ עִּיִּשְׁ עִּיִּשְׁ עִּיִּשְׁ עִּיִּ	גל לי	יי ש א מי
28-FEB-2001;	10-MAR-2000; 21-MAR-2000; 30-MAR-2000; 17-MAY-2000; 30-MAY-2000; 30-MAY-2000;	30-DEC-1999; 30-DEC-1999; 05-JAN-2000; 06-JAN-2000; 06-JAN-2000; 11-FEB-2000; 18-FEB-2000; 24-FEB-2000;	26-JUL-1999 28-JUL-1999 25-AUG-1999 25-AUG-1999 25-AUG-1999 29-OCT 1999 30-NOV-1999 30-DEC-1999 16-DEC-1999	12-MAR-1999 12-APR-1999 21-APR-1999 21-APR-1999 26-APR-1999 26-APR-1999 14-MAY-1999 14-MAY-1999 14-MAY-1999 14-MAY-1999 14-JUN-1999 16-JUN-1999	20-NOV-1998 20-NOV-1998 07-DEC-1998 22-DEC-1998 22-DEC-1998 23-DEC-1998 23-DEC-1999 05-JAN-1999 05-MAR-1999 10-MAR-1999 10-MAR-1999	28-MAY-1998; 28-MAY-1998; 26-JUN-1998; 26-JUN-1998; 26-JUN-1998; 01-JUL-1998; 30-JUL-1998; 30-JUL-1998; 07-OCT-1998; 07-OCT-1998; 07-NOV-1998;
2000WO-US0207: 2000WO-US0207: 2000WO-US0233: 2000US-0070237: 2000WO-US03267 2000WO-US03267 2000WO-US03495 2000WO-US03655	2000WO-US0063: 2000WO-US0075: 2000WO-US0084: 2000WO-US01370 2000WO-US01400 2000WO-US01400	99WO-US0312: 99WO-US0312: 2000WO-US0002: 2000WO-US0003: 2000WO-US0003: 2000WO-US0034: 2000WO-US0050 2000WO-US0050	99US-014569 99US-014662 99US-013801 99US-003801 99US-003801 99US-06250 99US-05283 99WO-US02855 99WO-US02853	99US-013023 99US-013023 99US-013023 99US-0131023 99US-0131102 99US-013118 99US-0131428 99US-013428 99US-013955 99US-013955	98US - 010930 98US - 0202020 98US - 002185 98US - 002185 98US - 011362 98US - 011362 98US - 0105001 99US - 002648 99US - 002656 99US - 002656	98US-008710 98US-008720 98US-001054 98US-009101 98US-009101 98US-009135 98US-001068 98US-001689 98US-0018421 98US-0018421
15 9 25 6 7 2 2 3 7 4 2 3 7 4 2 3 7 4 2 3 7 4 3 3 7 4 3 3 7 4 3 3 7 4 3	745 7439 7445 7447	2243. 2219. 2219. 2217. 2316. 3316. 341. 841.	055400112000	10010000000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00000000000000000000000000000000000000

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 1.9%;
Best Local Similarity 81.8%;
Matches 18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-MAR-2001

22-MAR-2001

10-MAY-2001

10-MAY-2001

25-MAY-2001

01-JUN-2001

01-JUN-2001

05-JUN-2001

19-JUN-2001

29-JUN-2001

29-JUN-2001

29-JUN-2001

30-JUL-2001

30-JUL-2001
 17-OCT-1997
13-NOV-1997
13-NOV-1997
13-NOV-1997
10-NDR-1998
11-NDR-1998
11-NDR-1998
11-NDR-1998
12-NDR-1998
20-NDR-1998
20-NDR-1998
20-NDR-1998
20-NDR-1998
27-NDR-1998
27-NDR-1998
27-NDR-1998
27-NDR-1998
27-NDR-1998
27-NDR-1998
27-NDR-1998
27-NDR-1998
27-NDR-1998
                                                                                                                                                                                                                                                                                                                                                              Human; PRO polypeptide; secreted protein; transmembrane protein; cell death; neuropathy; neuropathy related disease; Charcot-Marie-Tooth disorder; Refsum's disease; Krabbe's disease; chromosome mapping; gene mapping; genetic disorder; septic shock; antibacterial; immunosuppressive; neuroprotective; PCR; primer; ss.
                                                                                                                                                                                                                                                                      16-OCT-2001;
                                                                                                                                                                                                                                                                                           01-MAY-2003
                                                                                                                                                                                                                                                                                                                    US2003083248-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADB76468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GETH )
                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        403
                                                                                                                                                                                                                                                                                                                                                                                                                                   PRO DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00816920.
2001US-00854280.
2001US-00854280.
2001US-00874280.
2001US-00872035.
2001US-00872035.
2001US-00872036.
2001US-00874503.
2001US-00882636.
2001US-00882636.
2001US-00882636.
2001US-00882636.
2001US-00882636.
2001US-00882636.
2001US-00882636.
2001US-00882636.
                                                                                                                                                                                                                                                                      2001US-00978757
                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                  PCR primer #119
 97US-0062250P
97US-006424P
97US-0066364P
98US-0077632P
98US-0077641P
98US-00777641P
98US-0077791P
98US-007791P
98US-0078910P
98US-0078910P
98US-0078910P
98US-0078936P
98US-0079656P
98US-0079658P
98US-0079658P
98US-0079663P
98US-0079663P
98US-0079663P
98US-0079663P
98US-0079663P
98US-0079663P
98US-0079663P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Score 15.6; D; Pred. No. 2.3e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1;
2.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
    15-APR 1998
15-APR 1998
15-APR 1998
15-APR 1998
21-APR 1998
21-APR 1998
22-APR 1998
23-APR 1998
29-APR 1998
30-APR 1998
31-MAY 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-APR-1998;
08-APR-1998;
08-APR-1998;
09-APR-1998;
09-APR-1998;
09-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAR-1998;
31-MAR-1998;
31-MAR-1998;
31-MAR-1998;
01-APR-1998;
01-APR-1998;
01-APR-1998;
01-APR-1998;
   98US-00091359P
98US-0080165P
98US-0080165P
98US-0080132P
98US-008032P
98US-0080333P
98US-00810195P
98US-0081195P
98US-0081195P
98US-00811279
98US-00818187P
98US-00818181PP
98US-00818181PP
98US-00818181PP
98US-0082704P
98US-0082704P
98US-0082796P
98US-0082796P
98US-0082796P
98US-0083336P
98US-0083441P
98US-0083459P
98US-0083459P
98US-0084639P
98US-0085733P
98US-0085333P
98US-0085333P
98US-0085333P
98US-0085333P
98US-0086431P
98US-0086431P
98US-0086431P
98US-0086431P
98US-0086332P
98US-0086431P
98US-00863333P
98US-0086431P
98US-0086332P
```

4.

Gaps

0

Length

```
int.
Ana
Section of the sectio
```

```
New PRO polypeptides useful neuropathies associated with or AIDS-associated ---
     The present invention relates to the isolation of novel human polypeptides, and the polynucleotide sequences encoding them. polypeptides are secreted and transmembrane proteins. The PRO
                                                                                                                                                                                                                                                                                     J, Baker KP, Botstein D, Desnoyers L, Eaton DL; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME; Godowski PJ, Grimaldi JC, Gunney AL, Hillan KJ; Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelt Tumas D, Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0109304P.
98US-0113029P.
98US-0113021P.
98US-0113021P.
99US-012000106.
99WO-US0005190.
99US-0126737.
99US-0126737.
99US-0131445P.
99US-0131445P.
99US-0131445P.
99US-01401733.
99WO-US012733.
99WO-US012733.
99WO-US012733.
99WO-US012733.
99WO-US012733.
99WO-US028313.
99WO-US031274.
                                                                                               425pp;
                                                                                                                                                                       with
                                                                                                                                                                       for treating peripheral h systemic disease such a
                                                                                                    English
                                                                                                                                                                     as post-polio
                                                                                                                                                                                                                                                                                                            Shelton
                                                                                                                                                                       syndrome
                                PRO
                                                                                                                                                                                                                                                                                                              DL;
RESULT 96
ADC43894/c
ID ADC438
XX ADC438
XX ADC438
XX ADC438
XX Human;
XW Human;
XW Human;
XW Ophtha
XX ADC438
XX Ophtha
XX Homo s
XX WOUND
XX HOMO s
XX US2003
XX US2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δδ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 18
     17-OCT-1997
03-NOV-1997
13-NOV-1997
11-NOV-1997
11-MAR-1998
11-MAR-1998
11-MAR-1998
11-MAR-1998
12-MAR-1998
12-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
27-MAR-1998
27-MAR-1998
27-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               polypeptides are useful for detecting other PRO polypeptides, for linking bioactive molecules to cells expressing PRO polypeptides, for modulating biological activities of cells expressing PRO polypeptides, and for identifying agonists or antagonists. The bioactive molecule maybe a toxin, radiolabel or antibody, and cause cell death. The PRO polypeptides are useful for treating neuropathy and neuropathy related diseases such as Charcot-Marie-Tooth disorder, Refsum's disease, and Krabbe's disease. The polynucleotide sequences encoding PRO polypeptides are useful as hybridisation probes, in chromosome and gene mapping, in the generation of antisense RNA and DNA, in the preparation of PRO polypeptides, for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; ss; PCR; sécreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC43894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-0CT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cccrecrecaecaeecreree
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00981915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCR
     97US-0062250P.
97US-0063311P.
97US-0063364P.
98US-0077641P.
98US-0077641P.
98US-0077791P.
98US-0078004P.
98US-0078910P.
98US-0078939P.
98US-0079656P.
98US-0079664P.
98US-0079788P.
98US-0080105P.
98US-0080105P.
98US-0080105P.
98US-0080105P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.9%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 15.6; DB 1;
Pred. No. 2.3e+02;
0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               424
```

20-NOV-1998
22-DEC-1998
23-DEC-1998
23-DEC-1998
05-JAN-1999
08-MAR-1999
08-MAR-1999
21-APR-1999
22-MAR-1999
23-APR-1999
24-APR-1999
25-APR-1999
26-JUN-1999
27-JUN-1999
28-APR-1999
29-OCT-1999
29-OCT-1999
29-OCT-1999
20-DEC-1999
20-DEC-1999
20-DEC-1999
20-DEC-1999
20-DEC-1999
21-APR-2000
20-APR-2000
20-MAR-2000
21-MAR-2000

Ashkenazi Ad Ferrara N, Goddard A, Kljavin IJ, Stewart TA,

2003-755118/71.

40;

Page

147;

(GETH

_

GENENTECH

INC.

Ą

אל א	אי פי	קק אים	אָס	אק א מי של אין
26-JUN-1998; 26-JUN-1998; 26-JUN-1998; 30-JUL-1998; 30-JUL-1998; 11-SEP-1998; 07-OCT-1998; 07-OCT-1998; 02-NOV-1998; 20-NOV-1998; 20-NOV-1998;	5 - MAY - 1 5 - MAY - 1 2 - MAY - 1 2 - MAY - 1 2 - MAY - 1 8 - MAY - 1 8 - MAY - 1	6-MAY-1 7-MAY-1 7-MAY-1 7-MAY-1 7-MAY-1 7-MAY-1 3-MAY-1 3-MAY-1 5-MAY-1 5-MAY-1		
98US-00008639 98US-0091010P 98US-0091359P 98US-0094651P 98US-0100038P 98US-01168978 98US-01184216 98US-00187368 98US-01187368	98US-0085582P 98US-0085689P 98US-008570P 98US-0085704P 98US-0085704P 98US-0086392P 98US-0086392P 98US-0086414P 98US-0086430P 98US-0086430P 98US-0086430P 98US-0086430P 98US-008708P	98US-0084414P. 98US-0084491P. 98US-0084600P. 98US-0084637P. 98US-0084637P. 98US-0084637P. 98US-0084639P. 98US-0084640P. 98US-0085333P. 98US-0085333P. 98US-0085333P. 98US-0085373P.	98US-0082797P 98US-0082796P 98US-0083336P 98US-008332P 98US-008332P 98US-0083392P 98US-0083495P 98US-0083499P 98US-0083499P 98US-0083545P 98US-0083545P 98US-0083545P 98US-0083545P 98US-0083545P 98US-0083545P 98US-0083545P	98US-0080338P 98US-0080334P 98US-00810749P 98US-0081070P 98US-00811071P 98US-0081203P 98US-0081203P 98US-0081223P 98US-008123P 98US-0081838P 98US-0081838P 98US-0081955P 98US-0081955P 98US-0082568P 98US-0082764P
		·		
:				
י סי טי טי טי טי טי טי טי טי טי		ם מים מים מים מים מים מים מים	ם ם ם ם ם ם ם ם ם ם ם ם ם ם ם ם	ק א ג ק א ג ק ק ק ק ק ק ק ק ק ק ק ק ק ק ק ק ק ק
25-MAY-2001 01-JUN-2001 01-JUN-2001 05-JUN-2001 14-JUN-2001 19-JUN-2001 29-JUN-2001 29-JUN-2001 39-JUL-2001	02-JUN-2000 28-JUL-2000 24-AUG-2000 08-NOV-2000 07-DOC-2000 01-DCC-2000 20-DEC-2000 20-DEC-2000 20-DEC-2000 28-FEB-2001 22-MAR-2001 22-MAR-2001 10-MAY-2001 110-MAY-2001	30-DEC-1999 30-DEC-1999 05-JAN-2000 06-JAN-2000 06-JAN-2000 11-FEB-2000 11-FEB-2000 24-FEB-2000 24-MAR-2000 21-MAR-2000 21-MAR-2000 21-MAY-2000 31-MAY-2000	14 - MAY - 14 - MAY - 14 - MAY - 102 - JUN - 13 - JUN - 12 - JUN - JUN - 12 - JUN - JUN - 12 - JUN - JUN - 12 - JUN - JUN - 12 - JUN - JUN - 12 - JUN - JUN - 12 - JUN - JUN - 12 - JUN - 1	
		, ., ., ., ., ., ., ., ., ., ., ., .,		98WO-US024855. 98US-00202054. 98US-00218517. 98US-0113296. 98US-0113621P. 99WO-US000106. 99WO-US005028. 99WO-US005128. 99WO-US005129. 99WS-00267213. 99US-0026773. 99US-0126773. 99US-0126773. 99US-0130232. 99US-01311432. 99US-01311432.
	800 1	4403314045671743	5 5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

The second secon

. m.c.

```
片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
Matches 1
    17-OCT-1997
13-NOV-1997
13-NOV-1997
13-NOV-1997
11-NAR-1998
11-NAR-1998
11-NAR-1998
11-NAR-1998
11-NAR-1998
12-NAR-1998
12-NAR-1998
20-NAR-1998
20-NAR-1998
20-NAR-1998
20-NAR-1998
20-NAR-1998
20-NAR-1998
20-NAR-1998
31-NAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADC61654;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2003049684-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.9%;
l Similarity 81.8%;
18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCTGCTCCAGCAGGCTCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00017081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first
    97US-0062250P
97US-006311P
97US-006311P
97US-006311P
98US-0077463CP
98US-0077641P
98US-0077641P
98US-00778886P
98US-0078886P
98US-0079839P
98US-0079654P
98US-0079654P
98US-007979663P
98US-007979864P
98US-0079923P
98US-0079933P
98US-0079933P
98US-0080155P
98US-0080333P
98US-0080333P
98US-0080333P
98US-0080333P
98US-0080333P
98US-0080333P
98US-0080333P
98US-0080333P
98US-0080333P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 15.6; DI
Pred. No. 2.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .3e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
15-APR 1998
15-APR 1998
15-APR 1998
15-APR 1998
15-APR 1998
21-APR 1998
22-APR 1998
23-APR 1998
23-APR
    98US-0081229P

98US-0081817P

98US-0081838P

98US-0081955P

98US-0082568P

98US-0082790P

98US-0082790P

98US-0082797P

98US-0083796P

98US-0083796P

98US-0083322P

98US-0083322P

98US-0083322P

98US-0083558P

98US-0083558P

98US-0083558P

98US-008467P

98US-008467P

98US-008467P

98US-008463P

98US-0086463P

98US-0086463P

98US-0086414P

98US-00865792P

98US-0086463P

98US-0086704P

98US-0086463P

98US-0086414P

98US-0086414P

98US-0086414P

98US-0086463P

98US-0086414P

98US-001631P

98US-00164651P

98US-00164651P
```

```
Query Match
Best Local S
Matches 18
                                                                                                                                                                            14-MAY-1999
12-MAY-1999
23-UN-1999
23-UN-1999
23-UIL-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
25-AUG-1999
26-UEC-1999
30-DEC-1999
30-MAR-2000
21-MAR-2000
22-MAY-2000
23-MAY-2000
24-AUG-2000
25-MAY-2000
21-MAX-2000
21-MAX-2000
21-MAX-2000
21-MAX-2000
21-MAX-2000
21-MAX-2000
21-MAX-2000
21-MAX-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-APR-1999;
26-APR-1999;
28-APR-1999;
14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-MAR-1999;
10-MAR-1999;
12-MAR-1999;
12-MAR-1999;
29-MAR-1999;
29-APR-1999;
                                                                                        Ashkenazi
                                                                                                                                   (GETH
                                                                                                                                   _
l Similarity
18; Conserv
                                                                                                                                   GENENTECH
                                                                                      ĀJ,
                                                                                                                                                                            99US-00265686
99US-01267219
99US-01267719
99US-01267719
99US-01267719
99US-01310229
99US-01310229
99US-013102329
99US-013102329
99US-013102329
99US-01312637
99US-01312637
99US-01312637
99US-01346680
99US-01462229
99US-01313630
  Conservative
                                                                                        Baker
                                                                                                                                   INC.
                   1.9%;
                                                                                        Ä,
                                                                                        Botstein
  0;
                       Score 15.6;
Pred. No. 2.
Pred. No. 2.3e
); Mismatches
                                                                                      'n
                                                                                           Desnoyers
                       : DB 1;
                                                                                      Ĺ
                                        Length 24;
  Indels
                                                                                        Eaton
                                                                                           DL;
  0
  Gaps
  0;
    RESULT 98
ADC63618/c
ID ADC6366
XX ADC6366
AC ADC636
XX ID 18-DEC
XW Human;
XW Cphtha
XW Cphtha
XW Cphtha
XW Cylon
XW Wound
XX ID 20-MAR
XY IT-MAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
  20-MAR 1998
20-MAR 1998
20-MAR 1998
20-MAR 1998
25-MAR 1998
25-MAR 1998
27-MAR 1998
27-MAR 1998
27-MAR 1998
31-MAR 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-OCT 1997

03-NOV 1997

13-NOV 1997

21-NOV 1997

21-NOV 1997

21-NAR 1998

11-MAR 1998

11-MAR 1998

11-MAR 1998

12-MAR 1998

13-MAR 1998

13-MAR 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-MAR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2003054405-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADC63618;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC63618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCTGCTCCAGCAGGCTCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00999833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
    98US-00040220

98US-0078896P

98US-0078936P

98US-0079856P

98US-0079656P

98US-0079664P

98US-00797689P

98US-0079728P

98US-0079728P

98US-0079728P

98US-0079728P

98US-0079728P

98US-0080105P

98US-0080105P

98US-008015P

98US-0080133P

98US-0080333P

98US-0080333P

98US-0081049P

98US-0081049P

98US-0081191P

98US-0081191P

98US-0081191P

98US-0081191P

98US-0081191P

98US-0081191P

98US-0081191P

98US-00818119P

98US-00818119P

98US-00818119P

98US-00818119P

98US-00818119P

98US-00818119P

98US-00818119P

98US-00818119P

98US-00818119P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0077649P.
98US-0077791P.
98US-0078004P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0077450P.
98US-0077632P.
98US-0077641P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97US-0062250P.
97US-0064249P.
97US-0065311P.
97US-0066364P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        424
```

Ž:

And the second of the second o

```
유
                                                      Query Match
Best Local S
Matches 18
                                                                                                                                                       21 APR-1999
22 - APR 1999
28 - APR 1999
14 - MAY 1999
14 - MAY 1999
16 - JUN 1999
17 - JUN 1999
28 - JUL 1999
29 - CUL 1999
29 - CUL 1999
25 - AUG 1999
25 - AUG 1999
25 - AUG 1999
26 - JUL 1999
27 - AUG 1999
28 - JUL 1999
29 - CUL 1999
20 - DEC 1999
20 - DEC 1999
21 - JUN 2000
20 - DEC 1999
21 - JUN 2000
21 - FEB 2000
21 - FEB 2000
21 - MAY 2000
21 - MAY 2000
22 - MAR 2000
23 - MAY 2000
24 - FUL 2000
25 - AUG 1999
26 - JUN 2000
27 - MAR 2000
28 - FUL 2000
29 - JUN 2000
21 - MAY 2000
21 - MAY 2000
21 - MAY 2000
21 - MAY 2001
22 - MAR 2001
23 - MAY 2001
24 - FUL 2001
25 - MAY 2001
26 - FUL 2001
27 - MAY 2001
28 - FUL 2001
29 - JUN 2001
21 - MAY 2001
22 - MAR 2001
23 - MAY 2001
24 - JUN 2001
25 - MAY 2001
26 - JUN 2001
27 - MAY 2001
29 - JUN 2001
20 - JUN 2001
                                                                                                                              (GETH
                          403
24
                                                      1.9%; l similarity 81.8%; 18; Conservative
                                                                                                                              GENENTECH
               CCCTGCTCCAGCAGGCTCTCCG
                                                                                                                                                        99US-0130232P

99US-013144SP

99US-013144SP

99US-01314259

99US-01401379

99US-0141037P

99US-0146228P

99US-0146228P

99US-0146228P

99US-0146228P

99US-0146228P

99US-0146228P

99US-01380137

99US-00380137

99US-00380137

99US-00380137

99US-00380137

99US-00380137

99US-013028565

99WC-US038565

99WC-US031274

2000WC-US031274

2000WC-US031274

2000WC-US031274

2000WC-US031274

2000WC-US031274

2000WC-US031274

2000WC-US031274

2000WC-US03566

2001WC-US03376

2000WC-US03376

2000WC-US014941

2000WC-US014941

2000WS-00747259

2000WS-00747259

2001WS-00747259

2001US-00816744

2001US-00816744

2001US-00816744

2001US-00886328

2001US-00886328

2001US-00886328

2001US-00886328

2001US-00886328

2001US-00886328

2001US-00886328

2001US-00886328

2001US-00886328
                                                    Score 15.6; DB 1;
Pred. No. 2.3e+02;
0; Mismatches 4
                            424
                                                                                Length
                                                         Indels
                                                                                     24;
                                                         0,
                                                        Gaps
```

21-PR-1998
22-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
23-APR-1998
23-APR-1998
29-APR-1998
30-MAY-1998
30-MAY-1998
31-MAY-1998
32-MAY-1998
32-MAR-1999
32-MAR-1999
32-MAR-1999
32-MAR-1999
32-MAR-1999
32-MAR-1999
32-MAR-1999
32-MAR-1999

98US-008256P 98US-0082700P 98US-0082700P 98US-0082700P 98US-0082700P 98US-0083332P 98US-0083332P 98US-0083496P 98US-0083496P 98US-0083496P 98US-0083496P 98US-0083554P 98US-0083554P 98US-008463P 98US-008463P 98US-008463P 98US-008573P 98US-0085333P 98US-008573P 98US-0085333P 98US-008573P 98US-008533P 98US-008573P 98US-008533P 98US-008570P 98US-008533P 98US-003534P 98US-0035449P 98US-003534P 9

RESULT 99

0,

```
ADC66718/c

XX

ADC66718;

XX

ADC6671997;

ADC662250P.

XX

ADC6671997;

ADC662250P.

XX

ADC6671997;

ADC662250P.

XX

ADC6671997;

ADC7644P.

XX

ADC6671997;

ADC662644P.

XX

ADC6671998;

ADC66364P.

XX

ADC6671998;

ADC67764P.

ADC7671998;

ADC67764P.

ADC7671998;

ADC677791P.

ADC77791P.

ADC7671998;

ADC7671998;

ADC767791P.

ADC7671998;

ADC7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vulnerary; virucide; neuroprotective; cytostatic; gene therapy; tumour cell proliferation inihibitor; secereted and transmembrane protein; PRO; viral infection; wound healing; tissue growth; muscle generation; muscle regeneration; amyotrophic lateral sclerosis; neuropathy; AIDS-associated neuropathy; diabetic peripheral neuropathy; chromosome identification; antagonist; tissue typing; immunohistochemical staining; primer; ss.
```

```
08-NOV-2000
27-NOV-2000
21-DEC-2000
01-DEC-2000
20-DEC-2000
20-DEC-2000
28-FEB-2001
22-MAR-2001
22-MAR-2001
10-MAY-2001
110-MAY-2001
01-JUN-2001
01-JUN-2001
14-JUN-2001
15-JUN-2001
11-JUN-2001
11-JUN-2001
11-JUN-2001
11-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                            21-MAR-2000;
30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
28-JUL-2000;
24-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                    11-FEB-2000;
18-FEB-2000;
24-FEB-2000;
02-MAR-2000;
10-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-DEC-1999,
                                                                                                                                                                                                                      (GETH
                                                                                                                                                                                                                      _
                                                                                                                                                                                                                      GENENTECH
                                                                                                                                                                                                                                  2000WO-US032678
2000WO-US034956
2001WO-US034956
2001WO-US006520
2001WS-00816920
2001WS-00816920
2001WS-00854208
2001WS-00854208
2001WS-00854208
2001WS-00874035
2001WS-00874503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US030095.
99WO-US031243.
99WO-US031274.
2000WO-US000219.
2000WO-US000277.
2000WO-US000376.
                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US003565.
2000WO-US004341.
2000WO-US005004.
2000WO-US005841.
2000WO-US006319.
                                                                                                                                                                                                                                                                                                                                                                                            2000WO-USC
2000WO-USC
                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US007532
2000WO-US008439
2000WO-US013705
                                                                                                                                                                                                                                                                                                                                                                              2000WO-US023328
                                                                                                                                                                                                                      INC.
                                                                                                                                                                                                                                                                                                                                                                                                   014941
                                                                                                                                                                                                                                                                                                                                                                                                           014042
```

Ferrara Goddard Kljavin Stewart IA, i AJ, Baker KP,
N, Filvaroff E,
A, Godowski PJ,
IJ, Kuo SS, Napi
TA, Tumas D, Wil KP, Botstein D, Desnoyers L, Eaton DL;
E, Fong S, Gao W, Gerber H, Gerritsen ME;
PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Napier MA, Pan J, Paoni NF, Roy MA, Shelt
Williams PM, Wood WI; Shelton DL;

WPI; 2003-596568/56.

Novel secreted and transmembrane polypeptides and polynucleotides encoding them, useful for treating wound healing, tissue growth and muscle generation and regeneration, amyotrophic lateral sclerosis o 9

Example 40; SEQ ID NO 246; 472pp; English

The invention describes an isolated secereted and transmembrane PRO colypeptide (I). PRO polypeptide such as PRO213, PRO700, PRO320 or PRO615 is useful in biotechnological and medical research, as well as in various condustrial applications. PRO polypeptide such as PRO300, PRO866, PRO703, PRO708, PRO320, PRO351, PRO352, PRO381, PRO615, PRO618, PRO772, PRO653, PRO6060 or PRO606 is useful for therapeutic purposes. PRO363 is useful cherapeutically in vivo for lessening the effects of viral infection. PRO200 is useful for the treatment of wound healing, tissue growth and compuse generation and regeneration. PRO37 is useful for treating campotrophic lateral selerosis, neuropathy. AIDS-associated neuropathy or diabetic peripheral neuropathy. A polynucleotide (II) encoding (I) is useful for generating transgenic animals or knockout animals which are useful in the development and screening of therapeutically useful creating transgenic animals or knockout animals which are useful in the development and screening of therapeutically useful creating transgenic animals or knockout animals which are useful in the development and screening of therapeutically useful creating as probes for generating a pool of sequences for identifying related PRO coding sequences, and to construct hybridisation probes for reagents, as probes Luigherelated PRO coding sequences, and

.

```
RESULT 100
ADC68842/c
ID ADC68842/c
ID ADC68842/c
AC ADC688
XX ADC688
XX ADC688
XX ADC688
XX Human;
XX Human;
XX Human;
XX Human;
XX Homo s
XX W ophtha
XX W ophtha
XX Homo s
XX W Ophtha
ID ADF
XX IOO
ID ADF
ID AD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mapping the gene which encodes the PRO and for the genetic analysis of individuals with genetic disorders, for recombinantly expressing (I) and for chromosome identification. (I) is useful as molecular marker for protein electrophoresis purposes, and as therapeutic agents. (I) is also useful for screening compounds to identify those that mimic the PRO polypeptide (agonists) or prevent the effect of the PRO polypeptide (antagonists) are useful for tissue typing. PRO antibodies are useful for immunohistochemical staining and/or assay of sample fluids. Anti-PRO antibodies are useful in diagnostic assays for PRO e.g. detecting its expression in specific cells, tissues or serum, and for affinity purification of PRO from recombinant cell culture or natural sources. This sequence represents a human seceretd and transmembrane PRO protein associated primer.
17-OCT-1997
03-NOV-1997
13-NOV-1997
13-NOV-1997
10-NAR-1998
11-MAR-1998
11-MAR-1998
11-MAR-1998
12-MAR-1998
12-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
20-MAR-1998
27-MAR-1998
27-MAR-1998
27-MAR-1998
27-MAR-1998
30-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sportes related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADC68842;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADC68842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003064407-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 81.8
18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTGCTCCAGCAGGCTCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24 BP; 5 A; 6 C; 9 G; 4 T; 0 U; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            871 PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00999834
97US-0062250P.
97US-006311P.
97US-0063364P.
97US-0063364P.
98US-0077643P.
98US-0077641P.
98US-0077641P.
98US-0077891P.
98US-0077991P.
98US-0078886P.
98US-0078936P.
98US-0079664P.
98US-0079664P.
98US-00797864P.
98US-0079788P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 15.6; D
Pred. No. 2.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
        31-MAR-1998;
31-MAR-1998;
31-MAR-1998;
31-MAR-1998;
01-APR-1998;
01-APR-1998;
00-APR-1998;
00-APR-1998;
00-APR-1998;
00-APR-1998;
00-APR-1998;
15-APR-1998;
15-APR-1998;
15-APR-1998;
15-APR-1998;
15-APR-1998;
22-APR-1998;
22-APR-1998;
22-APR-1998;
22-APR-1998;
22-APR-1998;
22-APR-1998;
23-APR-1998;
23-APR-1998;
24-APR-1998;
25-APR-1998;
27-APR-1998;
29-APR-1998;
30-APR-1998;
30-AP
      98US-0080105P.
98US-00801194P.
98US-0080333P.
98US-0080333P.
98US-0081043P.
98US-0081043P.
98US-0081043P.
98US-0081043P.
98US-0081043P.
98US-0081105P.
98US-0081105P.
98US-00818119P.
98US-00818119P.
98US-00818119P.
98US-00818119P.
98US-0081817P.
98US-008183P.
98US-008183P.
98US-00834569P.
98US-0083459P.
98US-0083459P.
98US-0083459P.
98US-008463P.
98US-008463P.
98US-008558P.
98US-008558P.
98US-0085697P.
98US-0085697P.
98US-0086723P.
98US-0086739P.
```

0,

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PR PR PR PR PR PR PR PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 1.9%;
Best Local Similarity 81.8%;
Matches 18; Conservative
 03-NOV-1997
13-NOV-1997
21-NOV-1997
21-NOV-1997
11-MAR-1998
11-MAR-1998
11-MAR-1998
12-MAR-1998
20-MAR-1998
21-MAR-1998
21-MAR-1998
21-MAR-1998
21-MAR-1998
21-MAR-1998
21-MAR-1998
21-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
31-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-JUN-2001;
29-JUN-2001;
09-JUL-2001;
30-JUL-2001;
                                                                                                                                                                                                                                                                                                                                                                                         Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis;
                                                                                                                                                                                                                                                                                     17-OCT-1997;
                                                                                                                                                                                                                                                                                                                                            US2003068648-A1
                                                                                                                                                                                                                                                                                                        25-OCT-2001;
                                                                                                                                                                                                                                                                                                                         10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADC62902;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ashkenazi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH )
                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               403
                                                                                                                                                                                                                                                                                                                                                                               healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                         PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTGCTCCAGCAGGCTCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                        871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AJ, Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; 2001WO-US019692.
; 2001WO-US021066.
; 2001WO-US021735.
; 2001US-00918585.
                                                                                                                                                                                                                                                                                                        2001US-00013921.
 97US-0065311P

97US-006364P

98US-0077632P

98US-0077649P

98US-0077649P

98US-0078910P

98US-0078910P

98US-0078936P

98US-0079294P

98US-0079294P

98US-0079663P

98US-0079664P

98US-00797868P

98US-00797868P

98US-00797868P

98US-00797869P

98US-00797868P

98US-00797869P

98US-00797869P

98US-00797869P

98US-00797878P

98US-00797878P

98US-00797878P

98US-00797878P

98US-0080105P

98US-0080105P

98US-0080154P

98US-0080337P

98US-00803334P
                                                                                                                                                                                                                                                                                                                                                                                                                                        PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                       primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24
                                                                                                                                                                                                                                                                                                                                                                                                                                        #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Botstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 15.6; D
Pred. No. 2.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ū
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Desnoyers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; DB 1;
2.3e+02;
nes 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eaton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
```

07-CCT 1998
07-CCT 1998
07-NCV 1998
07-NCV 1998
20-NCV 1998
20-NCV 1998
20-NCV 1998
22-DEC 1998
22-DEC 1998
05-MAR 1999
10-MAR 1999
10-MAR 1999
11-MAR 1999
11-MAR

98US-00168978
98WO-USC01141
98US-001187368
98US-001187368
98US-001187368
98US-001132967
98US-001132967
98US-001132967
98US-001132967
99US-00254465
99US-00254465
99US-00136566
99WO-USC05190
99US-002546566
99WO-USC05190
99US-00267213
99US-00267213
99US-00267213
99US-00267213
99US-00267213
99US-0021857
99US-00311837
99US-0031837
99US-00380127
99US-00386320
2000US-0073732
2000US-0073732
2000US-0073732
2000US-0073732
2000US-0073732
2000US-00863208
2000US-00863208
2000US-00863208
2000US-00883233
2000US-00882333
2000US-00882333

7422.

E her

```
21-APR-1999;
28-APR-1999;
28-APR-1999;
14-MAY-1999;
11-MAY-1999;
12-UN-1999;
13-DEC-1999;
14-FEB-2000;
14-FEB-2000;
14-FEB-2000;
14-FEB-2000;
17-MAY-2000;
18-FEB-2000;
11-MAY-2000;
12-MAR-2000;
12-MAR-2000;
12-MAY-2000;
13-MAY-2000;
13-DEC-2000;
13-DEC-2000;
14-DEC-2000;
15-DEC-2000;
16-FEB-2000;
17-MAY-2000;
18-FEB-2000;
19-MAY-2000;
19-MAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-01310232P

99US-0131023P

99US-0131445P

99US-0134287P

99US-0139257P

99US-013925313

99WO-US0128565

99WO-US028565

99WO-US031274

2000WO-US031274

2000WO-US030277

2000WO-US030376

2000WO-US000376

2000WO-US003491

2000WO-US006319

2000WO-US006319

2000WO-US006319

2000WO-US013705

2000WO-US013705

2000WO-US013705

2000WO-US013705

2000WO-US013705

2000WO-US013705

2000WO-US013705

2000WO-US014942

2000WO-US0152678

2001WO-US0152678

2001WO-US01552

2001WO-US017809

2001WO-US017809

2001WO-US017809

2001WO-US017809

2001WO-US017809

2001WO-US017852

2001WO-US017852

2001WO-US017852

2001WO-US017852

2001WO-US017852

2001WO-US017852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INC.
```

Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL; Ferrara N, Filvaroff E, Fong S, Gao W, Gezber H, Gerritsen ME; Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Kljavin IJ, Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton Stewart TA, Tumas D, Williams PM, Wood WI;

WPI; 2003-695924/66.

New isolated secreted and transmembrane PRO polypeptides, useful in the preparation of a medicament for treating a condition responsive to the polypeptide, and as therapeutic agents e.g. vaccines.

Example 40; SEQ ID NO 246; 467pp; English.

The invention relates to an isolated PRO polypeptide (secreted or cransmembrane protein) having at least 80% amino acid sequence identity to an amino acid sequence chosen from 94 fully defined sequences as given in the specification (including PRO lacking its associated signal compitide). Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising CR PRO fused to a heterologous amino acid sequence, and an anti-PRO crantibody. PRO37 polypeptide is useful for detecting a PRO493 polypeptide. CS inilarly, PRO493 polypeptide is useful for detecting PRO37 collypeptide, and prod559 polypeptide. TRO739 polypeptide is useful for detecting PRO375, PRO700 or PRO739 polypeptide is useful for detecting PRO1559 polypeptide, and PRO493 polypeptide is useful for detecting PRO725, PRO700 or PRO39 polypeptide is useful for detecting CRO1559 polypeptide, and PRO493 polypeptide is useful for inking a CRO1559 polypeptide, and PRO493 polypeptide is useful for inking a CRO1559 polypeptide to a cell expressing PRO337 polypeptide. The bioactive molecule is the toxin, radiolabel, or an antibody The bioactive molecule

98US-0081049 98US-0081071p 98US-0081195p 98US-00811229p 98US-0081817p 98US-0081817p 98US-0081817p 98US-0081817p 98US-0081819 98US-0081952p 98US-0081952p 98US-0081952p 98US-0081952p 98US-0081952p 98US-0081952p 98US-0082797p 98US-0082797p 98US-0082797p 98US-0082797p 98US-0083495p 98US-0083495p 98US-0083495p 98US-0083495p 98US-0084637p 98US-0084637p 98US-0084637p 98US-0084637p 98US-0084637p 98US-0086414p 98US-0086414p 98US-0086430p 98US-0086312p 98US-0086312p 98US-0113621p 98US-0113621p 98US-012305120 99WO-US005120

08-APR-1998
08-APR-1998
08-APR-1998
08-APR-1998
09-APR-1998
15-APR-1998
15-APR-1998
15-APR-1998
15-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
22-APR-1998
23-APR-1998
30-APR-1998
31-MAY-1998
31-MAY

```
RESULT 102
ADC67967;
ADC67967;
XX
DE Human; ss;
XW Ophthalmol
XW Auditory;
XW ophthalmol
XW articular
XW ophthalmol
XW Auditory;
XW articular
XW OPHTHALMOL
XW IUS2003069;
XX US2003069;
XX US2003069;
XX IT-OCT-19;
PR 11-MAR-19;
PR 12-MAR-19;
PR 20-MAR-19;
PR 20-APR-19;
PR 30-MAR-19;
PR 31-MAR-19;
PR 30-APR-19;
PR 01-APR-19;
PR 01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 18
  17-OCT-1997
13-NOV-1997
13-NOV-1997
13-NOV-1997
11-VAR-1998
11-VAR-1998
11-VAR-1998
11-VAR-1998
12-VAR-1998
12-VAR-1998
20-VAR-1998
20-VAR-1998
20-VAR-1998
20-VAR-1998
20-VAR-1998
20-VAR-1998
20-VAR-1998
20-VAR-1998
21-VAR-1998
27-VAR-1998
28-APR-1998
29-APR-1998
29-APR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2003069178-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  causes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 1.9%;
l Similarity 81.8%;
18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               death
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTGCTCCAGCAGGCTCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00978423
  97US-0062250P

97US-006321P

97US-006331P

97US-006331P

98US-0077645P

98US-0077641P

98US-0077641P

98US-00778910P

98US-00778910P

98US-0078936P

98US-007963P

98US-007963P

98US-0079664P

98US-0079664P

98US-0079664P

98US-0079663P

98US-007963P

98US-007963P

98US-0079788P

98US-0079788P

98US-0079788P

98US-0080137P

98US-0080137P

98US-0080134P

98US-0080134P

98US-0081071P

98US-0081071P

98US-0081071P

98US-0081229P

98US-0081229P

98US-0081229P

98US-00818129P

98US-0081819P

98US-0081819P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PR0337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 15.6; D
Pred. No. 2.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    r
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linking
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
         15-APR 1998
21-APR 1998
21-APR 1998
22-APR 1998
23-APR 1998
24-APR 1998
25-APR 1998
25-APR 1998
25-APR 1998
25-APR 1998
26-APR 1998
27-MAY 1999
27-MAR 1999
27-MAR 1999
27-MAY 1998
27-MAY
```

98US-0081952P 98US-0082568P 98US-0082704P 98US-0082704P 98US-0082797P 98US-0082796P 98US-0083332P 98US-0083332P 98US-00833499P 98US-0083554P 98US-0083554P 98US-0083554P 98US-0083554P 98US-0084414P 98US-0084600P 98US-0084639P 98US-0084639P 98US-0084639P 98US-0084639P 98US-0084639P 98US-0084639P 98US-0084639P 98US-0084639P 98US-008573P 98US-001352P 98US-001352P 98US-013329P 98US-0133232P 98US-0133232P 99US-0133232P 99US-0133232P 99US-0133232P 99US-0133232P 99US-0133232P 99US-0133232P

72 TO,

Figure 1

cytostatic;

```
The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity to an amino acid sequence chosen from 94 fully defined sequences as given in the specification (including PRO lacking its associated signal peptide) a PRO extracellular domain with or without its associated signal peptide). Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising PRO fused to a heterologous amino acid sequence, and an anti-PRO antibody. PRO337 polypeptide is useful for detecting a PRO4993 polypeptide. PRO735, PRO700 or PRO739 polypeptide is useful for detecting PRO377 polypeptide, and PRO1559 polypeptide is useful for detecting PRO37 detecting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel secreted and transmembrane polypeptides, designated PRO polypeptides, and polynucleotides encoding them useful for treating kidney diseases, bone, cartilage and retinal disorders.
  403 CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40; SEQ ID NO 246; 468pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WJ, Baker KP, Botstein D, Desnoyèrs L, Eatôn DL;
Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME;
Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelton,
Tumas D, Williams PM, Wood WI;
                                                Score 15.6; Di
Pred. No. 2.3e
0; Mismatches
                                                                         DB 1;
                                                                                               Length
                                                   Indels
                                                   o
;
                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DI;
                                                      0
RESULT 103
ADC412
XX
XX
XX
XX
ADC412
XX
XX
ADC412
XX
XX
ADC412
XX

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                         17-OCT 1997
13-NOV 1997
13-NOV 1997
11-NAR 1998
11-MAR 1998
11-MAR 1998
11-MAR 1998
11-MAR 1998
12-MAR 1998
20-MAR 1998
20-MAR 1998
20-MAR 1998
27-MAR 1998
27-MAR 1998
27-MAR 1998
27-MAR 1998
31-MAR 1998
31-APR 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADC41287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2003072745-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADC41287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard; DNA; 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        871 PCR primer #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001US-00013929
  98US-0079920P

98US-0079923P

98US-0080105P

98US-0080165P

98US-00801327P

98US-0080333P

98US-0080333P

98US-0081034P

98US-0081070P

98US-0081170P

98US-0081195P

98US-0081203P

98US-0081203P

98US-0081203P

98US-0081203P

98US-0081203P

98US-0081203P

98US-0081203P

98US-0081259

98US-0081859

98US-0081859

98US-0081855P

98US-0081855P

98US-0081855P

98US-0082568P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0079689P.
98US-0079728P.
98US-0079786P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0079294P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0078936P
98US-0078939P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0078910P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ω
```

Ferrara Goddard Kljavin Stewart

TA,

2003-657582/62.

Ashkenazi

Ą

_

GENENTECH INC.

07-JUL-1999; 99US-0142680P.
26-JUL-1999; 99US-0146528P.
28-JUL-1999; 99US-0165266P.
29-OCT-1999; 99US-0165266P.
30-NOV-1999; 99WO-US028565.
16-DEC-1999; 99WO-US028565.
16-DEC-1999; 99WO-US031274.
05-JAN-2000; 2000WO-US00376.
11-FEB-2000; 2000WO-US003731.
11-MAR-2000; 2000WO-US007532.
11-MAR-2000; 2000WO-US0014941.
10-MAR-2000; 2000WO-US014941.
10-JUN-2000; 2000WO-US014941.
10-JUN-2000; 2000WO-US014941.
10-DEC-2000; 2000WO-US014941.
1

Ś

Query Match
Best Local Similarity
Matches 18; Conserv

Conservative

0;

1.9%;

```
ע ש היי ע ש היי ע ש היי ע ש בי ע ש בי ע ש היי ע היי ע
22-APR 1998
22-APR 1998
22-APR 1998
23-APR 1998
29-APR 1998
20-APR 1999
21-APR 1999
22-APR 1999
23-UUL 1999
21-APR 1999
21-APR 1999
22-APR 1999
23-APR 1999
24-APR 1999
25-APR 1999
26-APR 1999
27-APR 1999
28-APR 1999
29-APR 1999
29-APR 1999
29-APR 1999
20-APR 1998
20-APR 1998
20-APR
98US-0082704P

98US-0082796P

98US-0083322P

98US-0083323P

98US-0083496P

98US-0083496P

98US-0083554P

98US-0083554P

98US-0084414P

98US-0084414P

98US-0084637P

98US-0084637P

98US-0084637P

98US-0084637P

98US-0084637P

98US-0084637P

98US-0084637P

98US-0085573P

98US-0085573P

98US-0085573P

98US-0085573P

98US-0085573P

98US-0085573P

98US-0086410P

98US-0085573P

98US-0086720P

98US-013621P

98US-013621P

98US-013621P

98US-013621P

99US-013621P

99US-013621P

99US-013621P

99US-013623P

99US-013628P

99US-014689P

99US-014689P

99US-0166250P

99US-0166250P
```

```
02-DEC-1999
02-DEC-1999
16-DEC-1999
30-DEC-1999
30-DEC-1999
05-JAN-2000
06-JAN-2000
06-JAN-2000
01-FEB-2000
11-FEB-2000
02-MAR-2000
02-MAR-2000
02-MAR-2000
02-MAR-2000
03-MAR-2000
03-MAR-2000
02-MAR-2000
02-MAR-2000
03-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-USO 28551

99WO-USO 31243

99WO-USO 31274

99WO-USO 31274

2000WO-USO 00277

2000WO-USO 00277

2000WO-USO 00376

2000WO-USO 00376

2000WO-USO 00341

2000WO-USO 005841

2000WO-USO 005841

2000WO-USO 005841

2000WO-USO 00753

2000WO-USO 00753

2000WO-USO 13705

2000WO-USO 13705

2000WO-USO 13705

2000WO-USO 13705

2000WO-USO 14042

2000WO-USO 14042

2000WO-USO 14042

2000WO-USO 15264

2000WO-USO 15264
```

Ashkenazi A, Ferrara N, F Goddard A, G Kljavin IJ, Stewart TA, (GETH) GENENTECH INC. A, Baker KP, Botstein D, Desnoyers L, Eaton Di; Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME; Godowski PJ, Grimaldi JC, Gurney AI, Hillan KJ; Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Shelto, Tumas D, Williams PM, Wood WI;

WPI; 2003-743806/70.

Novel isolated secreted and transmembrane PRO polypeptides, useful preparation of a medicament for treating a condition responsive to polypeptide, and as therapeutic agents e.g. vaccines. in t the

Example 40; SEQ ID ŏ 246; 466pp; English.

The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence as given to an amino acid sequence chosen from 94 fully defined sequences as given in the specification (including PRO lacking its associated signal peptide). Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising PRO, a chimaeric molecule comprising PRO, a host cell comprising the vector and producing PRO, a chimaeric molecule comprising PRO, a protein surformed to a heterologous amino acid sequence, and an anti-PRO antibody. PRO337 polypeptide is useful for detecting a PRO4993 polypeptide is useful for detecting a PRO4993 polypeptide is useful for detecting a PRO4993 polypeptide is useful for detecting PRO337

```
RESULT 104
ADC67342/c
ID ADC67342 standard; DNA;
                                                           Š
                                                                              Query Match
Best Local Similarity
Matches 18; Conserv
                                                             403
                                             24
                                                      CCCTGCTCCAGCAGGCTCTCCG
                                             CCCTGTGCCAGTAGGATCTCCG
                                                                               Conservative
                                                                                        1.9%;
                                                                               0,
                                                                                        Score 15.6;
Pred. No. 2
                                                             424
                                                                                 Mismatches
                                                                                         3e+02
                                                                                                 DB
                                                                                                Length
                                                                                Indels
                                                                                                  24;
                                                                               0;
                                                                               Gaps
```

0

24 ВP

※X S X N X N X N X N X R R R R R R R R R R R	
Lissue typing; Homo sapiens. US2003073131-A: 17-APR-2003. 25-OCT-2001; 20 17-OCT-1997; 03-NOV-1997; 11-MAR-1998; 11-APR-1998;	ADC67342; 18-DEC-2003 (1 Human PRO 871 i vulnerary; viritumour cell prometh; secereted and tissue growth; amyotrophic lad diabetic peripl
immunohistochemical staining; primer; ss. 01US-00016177. 97US-0062250P. 97US-00633449P. 97US-0063364P. 98US-0077450P. 98US-0077451P. 98US-0077641P. 98US-0080165P. 98US-0080165P. 98US-0080165P. 98US-00801328P. 98US-00801328P. 98US-00801328P. 98US-00801329. 98US-0081138P. 98US-008138P. 98US-0081138P. 98US-008138P. 98US-008138P. 98US-008138P. 98US-0081370P. 98US-0082797P. 98US-0082797P. 98US-0083336P.	iirst entry) PCR primer #1. cide; neuroprotective; cytostatic; gene liferation inihibitor; viral infect muscle generation; muscle regeneration; muscle generation; eral sclerosis; neuropathy; AIDS-associteral neuropathy; chromosome identificat
קר ק	
	28-APR-199 29-APR-199 29-APR-199 29-APR-199 29-APR-199 29-APR-199 29-APR-199 29-APR-199 29-APR-199 29-APR-199 30-APR-199 30-APR-199
98US-0084441P. 98US-0084637P. 98US-0084637P. 98US-0084633P. 98US-0084633P. 98US-00855338P. 98US-0085580P. 98US-0085580P. 98US-0085580P. 98US-0085580P. 98US-0085597P. 98US-0085700P. 98US-0086733P. 98US-0086733P. 98US-0086733P. 98US-0086733P. 98US-008569P. 98US-0085700P. 98US-0086733P. 98US-0086733P. 98US-0086733P. 98US-0086733P. 98US-0086733P. 98US-0086733P. 98US-008673P. 98US-008673P. 98US-008673P. 98US-0087106P. 98US-0087106P. 98US-001033P. 98US-010303P. 98US-010303P. 98US-010303P. 98US-010303P. 98US-010303P. 98US-01332P. 98US-01332P. 98US-01332P. 98US-01332P. 98US-01332P. 98US-01332P. 98US-01332P. 99US-01332P. 99US-0142680P.	US-0083392 US-0083995 US-0083496 US-0083899 US-0083500 US-0083504 US-0083554 US-0083554 US-0083554 US-0083554

```
RESULT 105
ADC62278/c
ID ADC622
XX
AC ADC622
XX
AC ADC622
XX
DX 18-DEC
XX
DE Human
XX
                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                            밁
                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-UUN-2000
28-UUL-2000
24-AUG-2000
01-DEC-2000
20-DEC-2000
20-DEC-2000
28-FEB-2001
28-FEB-2001
28-MAY-2001
01-UUN-2001
29-UUN-2001
29-UUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JAN-2000

06-JAN-2000

06-JAN-2000

11-FEB-2000

11-FEB-2000

24-FEB-2000

24-FEB-2000

20-MAR-2000

21-MAR-2000

21-MAR-2000

31-MAR-2000

21-MAY-2000

22-MAY-2000

31-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ferrara
Goddard
Kljavin
Stewart
                                                                                                                                                                                                                                                                                       The invention describes an isolated secereted and transmembrane PRO polypeptide (I). PRO polypeptide such as PRO213, PRO700, PRO320 or PRO615 is useful in biotechnological and medical research, as well as in various industrial applications. PRO polypeptide such as PRO300, PRO866, PRO703, PRO319, PRO321, PRO352, PRO381, PRO615, PRO618, PRO772, PRO853, PRO8660 or PRO846 is useful for therapeutic purposes. PRO363 is useful therapeutically in vivo for lessening the effects of viral infection. PRO200 is useful for the treatment of wound healing, tissue growth and muscle generation and regeneration. PRO337 is useful for treating amyotrophic lateral sclerosis, neuropathy, AIDS-associated neuropathy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel isolated secreted and transmembrane PRO polypeptides, useful preparation of a medicament for treating a condition responsive to polypeptide, and as therapeutic agents e.g. vaccines.
                  Human PRO
                                              18-DEC-2003
                                                                        ADC62278;
                                                                                                    ADC62278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-743810/70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example
                                                                                                                                                                                                       403
                                                                                                                                                                            24
                                                                                                                                                                                                                                  l Similarity
18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                      40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A,
TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    i AJ, Baker KP,
N, Filvaroff E,
A, Godowski PJ,
IJ, Kuo SS, Nap
TA, Tumas D, Wi
                                                                                                    standard;
                                                                                                                                                                                                       CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                            CCCTGTGCCAGTAGGATCTCCG
                  871
                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US000219
2000WO-US000376
2000WO-US0003565
2000WO-US00504341
2000WO-US0050841
2000WO-US0050841
2000WO-US00753
2000WO-US00753
2000WO-US014941
2000WO-US014941
2000WO-US014941
2000WO-US015264
2000WO-US0237328
2000WO-US03378
2000WO-US034956
2001WO-US034956
2001WO-US031705
2001WO-US01705
2
                                              (first entry)
               PCR primer #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INC.
                                                                                                     DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      NO 246;
                                                                                                                                                                                                                                                  81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Napier MA,
Williams
                                                                                                     24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Botstein D, Desnoyers L, Eaton DL;
Fong S, Gao W, Gerber H, Gerritsen ME;
Grimaldi JC, Gurney AL, Hillan KJ;
ier MA, Pan J, Paoni NF, Roy MA, Shelt
lliams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   464pp; English
                                                                                                                                                                                                                                    ;
                                                                                                                                                                                                                                                  Score 15.6;
Pred. No. 2
                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                            ω
                                                                                                                                                                                                                                                   .3e+02
                                                                                                                                                                                                                                                                DB 1;
                                                                                                                                                                                                                                                                Length 24;
                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Shelton
                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the
                                                                                                                                                                                                                                      0
    09-APR 1998
09-APR 1998
15-APR 1998
15-APR 1998
15-APR 1998
15-APR 1998
15-APR 1998
15-APR 1998
21-APR 1998
22-APR 1998
22-APR 1998
22-APR 1998
22-APR 1998
23-APR 1998
29-APR 1998
29-APR 1998
29-APR 1998
29-APR 1998
29-APR 1998
                                                                                                                                                                                                                                                                                                                                                                                                            30-MAR-1998;
31-MAR-1998;
31-MAR-1998;
31-MAR-1998;
31-MAR-1998;
01-APR-1998;
01-APR-1998;
01-APR-1998;
01-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-MAR 1998
11-MAR 1998
11-MAR 1998
11-MAR 1998
11-MAR 1998
12-MAR 1998
13-MAR 1998
20-MAR 1998
20-MAR 1998
20-MAR 1998
20-MAR 1998
25-MAR 1998
27-MAR 1998
27-MAR 1998
27-MAR 1998
27-MAR 1998
                                                                                                                                                                                                                                                                                                                                                                   08-APR-1998;
08-APR-1998;
08-APR-1998;
```

Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; healing; hearing loss; primer. cytostatic; vulnerary;

sapiens.

US2003073624-A1.

17-APR-2003

03-NOV-1997 17-OCT-1997; 15-OCT-2001; 2001US-00978193 97US-0064249P 97US-0062250P

98US-0077450P. 98US-0077632P. 98US-0077641P.

98US-00040220. 98US-0078886P. 98US-0078910P. 98US-0077649P. 98US-0077791P. 98US-0078004P.

98US-0078939;
98US-0079294;
98US-0079664;
98US-0079664;
98US-0079664;
98US-0079664;
98US-007978;
98US-007978;
98US-0079792;
98US-0080107;
98US-0080107;
98US-0080337;
98US-0080107;
98US-0081195;
98US-0081817;
98US-0081817;
98US-0081817;
98US-0081817;
98US-0081817;
98US-0081817;
98US-0081833;
98US-0081952;
98US-0081833;
98US-0083335;
98US-0083335;
98US-0083335;
98US-0083339;
98US-008339;

د سند. ۱۲۰۲۱ و

```
RESULT 106
ADC41911/c
ID ADC41911;
XX
AC ADC41911;
XX
AC ADC41911;
XX
DT 18-DEC-20
XX
Human PRO
XX
Human; ss
KW ophthalmo
KW Human; ss
KW ophthalmo
KW articular
KW articular
KW wound hea
XX
W Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뮍
                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-DEC-1999
16-DEC-1999
16-DEC-1999
30-DEC-1999
30-DEC-1999
05-JAN-2000
06-JAN-2000
06-JAN-2000
06-JAN-2000
07-PEB-2000
07-PAR-2000
07-PAR
                                 Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                        ADC41911;
                                                                                                                                                                                     18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH
                                                                                                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J
                                                                                                                                                  PRO
                                                                                                                                                                                                                                                                                                                                                     24
                                                                                                                                                                                                                                                                                                                                                                                                                       ch 1.9%;
1 Similarity 81.8%;
18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENENTECH
                                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                     CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                        CCCTGCTCCAGCAGGCTCTCCG
                                                                                                                                              871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US031274
2000WO-US000271
2000WO-US000276
2000WO-US000376
2000WO-US00341
2000WO-US005804
2000WO-US005804
2000WO-US00581
2000WO-US00581
2000WO-US004941
2000WO-US014941
2000WO-US015264
2000WO-US032378
2000WO-US032378
2000WO-US032374
2000WO-US032374
2000WO-US032374
2000WO-US032678
2001WO-US032678
2001WO-US032678
2001WO-US017850
2001WO-US017850
2001WO-US017850
2001WO-US017850
2001WO-US017850
2001WO-US017850
2001WO-US017853
2001WO-US017853
2001WO-US017853
                                                                                                                                                PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INC.
                                                                                                                                              primer
                                                                                                                                                                                                                                                           DNA;
                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                           24
                                                                                                                                                #1
                                                                                                                                                                                                                                                           ВP
                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                       Score 15.6; DB 1;
Pred. No. 2.3e+02;
0; Mismatches 4
                                                                                                                                                                                                                                                                                                                                                                                          424
                                                                                                                                                                                                                                                                                                                                                                                                                           4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                24;
                                                                                                                                                                                                                                                                                                                                                                                                                           ·.
                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                           0,
```

Homo sapiens

30-APR-1998
35-APR-1998
36-MAY-1998
36-MAY-1998
37-MAY-1998
37-MAY-1999
37-MAR-1999
37-MAR-1998
37-MAR-1998
37-MAR-1998
37-MAR-1998
37-MAR-1998
37-MAR-1998
37-MAR-1998
37-MAR-1998
37-MAR

98US-008355PP
98US-0084364PP
98US-0084414PP
98US-0084463PP
98US-0084643PP
98US-0084643PP
98US-0084643PP
98US-0084643PP
98US-0085333PP
98US-0085580PP
98US-0085580PP
98US-0085573PP
98US-0085573PP
98US-0085573PP
98US-0085704PP
98US-0085704PP
98US-0086333PP
98US-00863704PP
98US-00863704PP
98US-00863704PP
98US-008631PP
98US-008631PP
98US-008631PP
98US-001871141
98US-001871141
98US-001871141
98US-001871141
98US-001871141
98US-001871141
98US-00187113296PP
98US-001871131
98US-001871131
98US-001871131
98US-001871131
99US-0013113254PP
99US-001312557PP
99US-00136232PP
99US-0013623313

X X X Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	KX XX XX
OCT-1997 -NOV-1997 -NOV-1997 -NOV-1997 -NOV-1997 -NOV-1997 -NOV-1997 -NOW-1998 -NAR-1998	US2003104998-A1 05-JUN-2003 16-OCT-2001; 20
00000000000000000000000000000000000000	A1. 2001US-00978643.
•	
੶ਫ਼ਫ਼ਲ਼ਫ਼	98 89 89 89 89 89
13 -MAY 1998 13 -MAY 1998 13 -MAY 1998 15 -MAY 1998 22 -MAY 1998 22 -MAY 1998 22 -MAY 1998 23 -MAY 1998 26 -JUN 1998 26 -JUN 1998 27 -MAY 1998 28 -MAY 1998 29 -MAY 1999 20 -NOV 1998 20 -NOV 1998 21 -MAR 1999 21 -MAR 1999 22 -MAR 1999 23 -JUN 1999 24 -MAY 1999 25 -AUG 1999 26 -APR 1999 27 -MAY 1999 28 -APR 1999 28 -APR 1999 29 -MAY 1999 20 -MAY 1999 21 -MAY 1999 21 -MAY 1999 22 -MAY 1999 23 -JUN 1999 24 -MAY 1999 25 -AUG 1999 26 -APR 1999 27 -MAY 1999 28 -APR 1999 28 -APR 1999 28 -APR 1999 29 -COTT 1999 20 -DEC 1999 21 -MAY 1999 21 -MAY 1999 22 -MAY 1999 23 -JUN 1999 24 -MAY 1999 25 -AUG 1999 26 -DEC 1999 27 -DEC 1999 28 -DEC 1999 29 -DEC 1999 30 -DEC 1999 30 -DEC 1999 31 -DEC 1999	-199 -199 -199 -199
98US-0085339P 98US-0085339P 98US-0085339P 98US-0085573P 98US-0085589P 98US-0085589P 98US-0085689P 98US-0086704P 98US-0086704P 98US-0086704P 98US-0086414P 98US-0086414P 98US-0086411 98US-0086411 98US-0086411 98US-00164111 98US-00164111 98US-00164111 98US-00164111 98US-00164111 98US-00164111 98US-00164111 98US-00164111 98US-00164111 98US-00164111 98US-00164111 98US-00164111 98US-00164111 98US-0086411 98US-00164111	8US-0084627 8US-0084627 8US-0084637 8US-0084639 8US-0084639 8US-0084643

```
RESULT 107
ADE49280/c
ID BAB492
XX ADE492
XX ADE492
XX ADE492
XX ADE492
XX Human;
XX Human;
XW cphtha
XW cphtha
XW articu
XW wound
OS Homo s
XX WOUND
SX Homo s
XX WOUND
SX Homo s
XX WOUND
PN US2003
XX PD 22-MAY
XX YF 28-JAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-JAN-2000
06-JAN-2000
06-JAN-2000
11-FEB-2000
11-FEB-2000
24-FEB-2000
02-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
22-MAY-2000
22-MAY-2000
22-MAY-2000
23-MAY-2000
24-AUG-2000
24-AUG-2000
25-MOV-2000
27-MOV-2000
28-FEB-2000
29-FEB-2000
20-DEC-2000
21-MAR-2001
22-MAR-2001
22-MAR-2001
22-MAR-2001
23-MAY-2001
21-MAY-2001
21-MAY-2001
21-JUN-2001
                                                                                                                              Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                28-JAN-2002; 2002US-00978187.
                                                                                                                                                                                                                                                        29-JAN-2004
                                                                                                                                                                                                                                                                                   ADE49280;
                                                                                                                                                                                                                                                                                                                  ADE49280 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GETH
                                                                         US2003096744-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                403 CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                      sapiens
                                                                                                                                                                                                                          PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J
                                                                                                                                                                                                                                                                                                                                                                                            24
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ch 1.9%; 1 Similarity 81.8%; 18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                            CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                          871 PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-00816920
2001US-00816920
2001WS-00854208
2001US-00854280
2001US-00854280
2001US-00872035
2001US-00872035
2001US-00872035
2001US-00872035
2001US-00886342
2001US-00886342
2001WS-US021066
2001WS-US021066
2001WS-US021066
2001US-00918585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US000277
2000WO-US000376
2000WO-US00356
2000WO-US00441
2000WO-US0058004
2000WO-US005819
2000WO-US005819
2000WO-US007532
2000WO-US007532
2000WO-US0047532
2000WO-US0047532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-00709238.
2000US-00723749.
2000WO-US032678.
2000US-00747259.
2000WO-US034956.
2001WO-US036520.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000WO-US014941
2000WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US023328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US
                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                   DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   020710
                                                                                                                                                                                                                                                                                                                   24
                                                                                                                                                                                                                          #1.
                                                                                                                                                                                                                                                                                                                   BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 15.6; DI
Pred. No. 2.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                            w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1;
.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
   11 MAR - 1996

13 - MAR - 1998

13 - MAR - 1998

17 - MAR - 1998

20 - MAR - 1998

21 - MAR - 1998

22 - MAR - 1998

23 - MAR - 1998

24 - MAR - 1998

27 - MAR - 1998

27 - MAR - 1998

28 - APR - 1998

29 - APR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-MAR-1998;
11-MAR-1998;
11-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-OCT-1997;
03-NOV-1997;
13-NOV-1997;
21-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0079728P.

98US-0079786P.

98US-0079920P.

98US-0079923P.

98US-0080105P.

98US-0080194P.

98US-0080327P.

98US-0080338P.

98US-0080334P.

98US-0080334P.

98US-0080334P.
                 98US-0081838P

98US-0081955P

98US-0082568P

98US-0082704P

98US-0082704P

98US-0082704P

98US-0082332P

98US-008332P

98US-008332P

98US-0083496P

98US-0083496P

98US-0083496P

98US-008354P

98US-008439P

98US-0084637P

98US-0084639P

98US-0084639P

98US-0084639P

98US-0084639P

98US-0084639P

98US-0084639P

98US-0084639P

98US-0084639P

98US-0084639P

98US-0084639P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0077450P.
98US-0077632P.
98US-0077641P.
98US-0077791P.
98US-0078004P.
98US-0078086P.
98US-0078886P.
98US-0078910P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0079656P.
98US-0079663P.
98US-0079664P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97US-0062250P.
97US-0064249P.
97US-0065311P.
97US-0066364P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0081070P
98US-0081071P
98US-0081195P
98US-0081203P
98US-0081229P
98US-0081817P
98US-0081817P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -Sn86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SU86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0079689P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S-0078936P.
S-0078939P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -0079294P
```

밁 Ş

```
RESULT 108
ADE35334/c
ID ADE35334;
XX ADE3534;
XX 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 1.9%;
Best Local Similarity 81.8%;
Matches 18; Conservative
                                      15-MAY-1998;

08-MAR-1999;

28-APR-1999;

25-AUG-1999;

18-FEB-2000;

30-JUL-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-MAY 2000
22-MAY 2000
30-MAY 2000
30-MAY 2000
22-JUN 2000
22-JUN 2000
24-AUG 2000
27-NOV 2000
20-DEC 2000
20-DEC 2000
20-DEC 2000
20-DEC 2000
20-DEC 2000
21-MAR 2001
22-MAR 2001
22-MAR 2001
22-MAR 2001
10-MAY 2001
110-MAY 2001
110-MAY 2001
111-JUN 2001
114-JUN 2001
114-JUN 2001
114-JUN 2001
114-JUN 2001
119-JUN 2001
                                                                                                                                                                                                                                                                                                                                                                             Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                  18-OCT-2001;
                                                                                                                                                                                                                                                30-OCT-2003.
                                                                                                                                                                                                                                                                                           US2003203434-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ashkenazi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH )
                                                                                                                                                                                                                                                                                                                                       sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRO 871 PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Æ,
                                      98US-0085689P.
99WG-US005028.
99US-0131445P.
99US-00380138.
2000WO-US004341.
2001US-00918585.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000WC-US01474

2000WC-US01474

2000WC-US014941

2000WC-US0254

2000WC-US023328

2000WC-US023328

2000WC-US023749

2000WC-US032678

2000WC-US032678

2000WC-US034956

2000WC-US034956

2001WC-US034956

2001WC-US034956

2001WC-US04956

2001WC-US04956

2001WC-US04956

2001WC-US04956

2001WC-US04956

2001WC-US01744

2001WC-US01744

2001WC-US01749

2001WC-US01749
                                                                                                                                                                                                  2001US-00145088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Baker KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Botstein D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Score 15.6; DI
; Pred. No. 2.3e-
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Desnoyers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>+</u>;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eaton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
```

0,

13-MAY-1998
15-MAY-1998
15-MAY-1998
15-MAY-1998
15-MAY-1998
15-MAY-1998
15-MAY-1998
15-MAY-1998
15-MAY-1998
22-MAY-1998
22-MAY-1998
22-MAY-1998
22-MAY-1998
22-MAY-1998
23-MAY-1998
23-MAY-1998
24-MAY-1998
26-JUN-1998
26-JUN-1998
27-MAY-1998
27-MAY-1998
27-MAY-1998
28-MAY-1998
29-MAY-1998
20-NOV-1998
20-NOV-1998
20-NOV-1998
20-NOV-1998
20-MAR-1999
11-MAR-1999
12-ARR-1999
12-MAR-1999
12-MAR-1999
13-MAR-1999
14-MAY-1999
15-MAR-1999
15-MAR-1999
15-MAR-1999
16-JUN-1999
16-JUN-1999
16-JUN-1999
16-JUN-1999
17-MAR-1999
17-MAR-1999
18-MAY-1999
18-MAY-1999
18-MAY-1999
19-MAR-1999
19-MAR-1999
10-MAR-1999
10-MAR-1999
11-FEB-2000
11-FEB-2000
11-FEB-2000
11-FEB-2000
11-FEB-2000
11-FEB-2000
11-FEB-2000
11-FEB-2000
11-MAR-2000
11-MAR-20000
11-MAR-20000
11-MAR-20000
11-MAR-20000

98US-0085339P.
98US-0085573P.
98US-0085573P.
98US-0085580P.
98US-0085580P.
98US-0085580P.
98US-0085580P.
98US-0085700P.
98US-0085700P.
98US-0085700P.
98US-0085704P.
98US-0086430P.
98US-0086430P.
98US-0086430P.
98US-0086430P.
98US-0086430P.
98US-0086430P.
98US-0086430P.
98US-0086430P.
98US-008708P.
98US-009663P.
98US-0010543.3.
98US-0010543.3.
98US-0010543.3.
98US-00105451.4.
98US-0016897.9.
98US-0016897.9.
98US-0018708.3.
99US-0131445P.
99US-0131273.
99US-0131273.
99US-0131273.
99US-0131273.
99US-0038013.
99US-01302327.
99US-01302327.
99US-0038013.7.

Human; ss; PCR; secreted protein; transmembrane protein; PRO; cyto ophthalmological; antiarthritic; osteopathic; antirheumatic; vulne auditory; tumour growth; retinal disorder; sports-related joint prarticular cartilage defects; osteoarthritis; rheumatoid arthritis;

Human

PRO

871

PCR

primer

```
Ct transmembrane protein) having at least 80% mains caid sequence identity

Ct to an amino acid sequence chosen from 94 fully defined sequence as given

CC in the specification (including PRO lacking its associated signal

CC peptide, a PRO extracellular domain with or without its associated signal

CC mentioned above, a vector comprising a PRO mucleic acid), a host cell

CC comprising the vector and producing PRO, a chimaeric molecule comprising

CC PRO fused to a heterologous amino acid sequence, and an atti-PRO

CC antibody. PRO337 polypeptide is useful for detecting a PRO4993

CC polypeptide in a sample suspected of containing PRO4993

CC polypeptide. PRO722, PRO700 or PRO739 polypeptide is useful for detecting

CC PRO725, PRO700 or PRO739. PRO4993 polypeptide is useful for detecting

CC PRO725, PRO700 or PRO739. PRO4993 polypeptide is useful for clarities

CC causes death of the cell. PRO337 polypeptide is useful for linking a

CC bloactive molecule to a cell expressing PRO493 polypeptide is useful for linking a

CC polypeptide or PRO739 polypeptide is useful for linking a

CC polypeptide is the toxin, radiolabel, or an antibody. The bicactive molecule

CC causes death of the cell. PRO337 polypeptide is useful for linking a

CC pro700 or PRO739 polypeptide are useful for linking a

CC polypeptide or anti-PRO493 polypeptide; and PRO1559 polypeptide; PRO725,

CC polypeptide or anti-PRO493 polypeptide, and PRO1559 polypeptide; PRO725,

CC polypeptide or anti-PRO493 polypeptide, and PRO1559 polypeptide; PRO725,

CC polypeptide or anti-PRO493 polypeptide, where the cell expressing PRO37

CC polypeptide is useful for modulating at least one biological activity of

CC polypeptide is useful for modulating the softled is useful for

CC polypeptide; and PRO1559 polypeptide, where the cell is killed, PRO337

CD polypeptide is useful for modulating the biological activity of

CR pro700 or PRO739 polypeptide or anti-PRO755, anti-PRO700 or anti-

CC polypeptide is useful for modulating the biological activity of

CC pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ashkenazi AJ
Ferrara N,
Goddard A,
Kljavin IJ,
Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New genes, and its encoded secreted and transmembrane polypeptides useful for treating e.g. lung or breast tumors, osteoarthritis, rheumatoid arthritis, obesity, diabetes, hyperinsulinemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 40; SEQ ID NO 246; 462pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-875641/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hypoinsulinemia or wounds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GETH ) GENENTECH
  24
                                      The present sequence is oding a PRO protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Godowski PJ,
Kuo SS, Nap
, Tumas D, Wi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Filvaroff E,
  ഗ
A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KP, Botstein D, Desnoyers L, E B, Fong S, Gao W, Gerber H, PJ, Grimaldi JC, Gurney AL, Napier MA, Pan J, Paoni NF, Williams PM, Wood WI;
  σ
Ç
  9
  G;
4
Η,
0
U;
    0
  Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        H, Eaton DL;
H, Gerritsen ME;
Hillan KJ;
Noy MA, Shelto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shelton DL;
```

```
The invention relates to an isolated PRO polypeptide (secreted or cransmembrane procein) having at least 80% amino acid sequence identity to an amino acid sequence chosen from 94 fully defined sequences as given cin the specification (including PRO lacking its associated signal peptide). Also included are nucleic acids encoding the PRO proteins comprising the vector and producing PRO, a chimaeric molecule comprising PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising properties in useful for detecting a PRO4993 polypeptide is useful for detecting a PRO4993 polypeptide. Similarly, PRO4993 polypeptide is useful for detecting PRO337 polypeptide. PRO700 or PRO739. PRO700 or PRO739 polypeptide is useful for detecting PRO337 polypeptide. PRO725, PRO700 or PRO739. PRO4993 polypeptide is useful for lacking a producing producing PRO4993 polypeptide. The bloactive molecule to a cell expressing PRO337 polypeptide is useful for linking a bloactive molecule to a cell expressing PRO4993 polypeptide is useful for linking a consect death of the cell. PRO337 polypeptide is useful for linking a ploactive molecule to a cell expressing PRO4993 polypeptide is useful for linking a consect death of the cell. PRO337 polypeptide is useful for linking a ploactive molecule to a cell expressing PRO4993 polypeptide; where the cell expressing PRO337 polypeptide, and PRO1559 polypeptide is useful for linking a polypeptide is useful for linking a bloactive molecule to a cell expressing PRO337 polypeptide, where the cell is killed. PRO337 polypeptide, where the cell is killed. PRO337 polypeptide, where the cell is killed. PRO337 polypeptide or anti-PRO393 polypeptide is useful for modulating the biological activity of the cell expressing PRO1559 polypeptide or anti-PRO3030 pol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ashkenazi AJ
Ferrara N,
Goddard A,
Kljavin IJ,
Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New genes, and its encoded secreted and transmembrane polypeptides, useful for treating e.g. lung or breast tumors, osteoarthritis, rheumatoid arthritis, obesity, diabetes, hyperinsulinemia, hypoinsulinemia or wounds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-875642/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-APR-1998;
08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-OCT-2001; 2001US-00145092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 40; SEQ ID NO 246; 452pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-AUG-1999;
18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       i AJ, Baker KP,
N, Filvaroff E,
A, Godowski PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kuo SS,
Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US004341
2001US-00918585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-00380138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0141037P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0083742P
99WO-US005028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Napier MA, F
Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Botstein D, Desnoyers L, Eaton DL;
Fong S, Gao W, Gerber H, Gerritses:
Grimaldi JC, Gurney AL, Hillan KJ;
ier MA, Pan J, Paoni NF, Roy MA, i
lliams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gerritsen ME;
```

RESULT 109
ADE16448/c
ID ADE164
XX
AC ADE164
XX
AC ADE164
XX
CX 29-JAN

ADE16448

standard; DNA;

24

Ş 밁

24

CCCTGTGCCAGTAGGATCTCCG 3 cccrecrccaecaecrcrcce 424 Query Match Best Local S Matches 18

18; Conservative

0

Score 15.6; D Pred. No. 2.3e 0; Mismatches

.3e+02

0

0

DB 1; Length

1.9%;

```
ADD73063/c
ID ADD730
XX ADD730
AC ADD730
XX 29-JAN
XX Human
XX Human
XX wound
XX wound
XX Wound
XX WOUND
XX US2003
XX US2003
XX US2003
XX 18-OCT
XX 18-OCT
XX 18-OCT
XX 12-APF
PF 18-FEE
PR 18-FEE
P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-MAR-1999;
12-APR-1999;
25-AUG-1999;
18-FEB-2000;
30-JUL-2001;
                                                                                                                                                                                                                                                                                                                                                                                                              Ferrara
Goddard
Kljavin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-MAY-1998;
22-DEC-1998;
05-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polypeptides are useful for inhibiting tumour growth, retinal disc
sports-related joint problems, articular cartilage defects,
osteoarthritis or rheumatoid arthritis, wound healing and hearing
mammals. The present sequence is a PCR primer used to isolate nucl
acid encoding a PRO protein.
                       The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity to an amino acid sequence chosen from 94 fully defined sequences as given in the specification (including PRO lacking its associated signal peptide, a PRO extracellular domain with or without its associated signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; ss, PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis;
  peptide, a peptide). 1
                                                                                                                                                                                                                                           New PRO genes and encoded secreted and transmembrane polypeptides, to for treating e.g. lung or breast tumors, osteoarthritis, rheumatoid arthritis, obesity, diabetes, hyperinsulinemia, hypoinsulinemia or
                                                                                                                                                                        Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ashkenazi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003203436-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADD73063 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 24 BP; 5 A; 6 C; 9 G; 4 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GETH )
                                                                                                                                                                                                                                                                                                                                                2003-875643/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18;
                                                                                                                                                                                                                                                                                                                                                                                            I, A,
                                                                                                                                                                          40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                       :i AJ, Baker KP,
N, Filvaroff E,
A, Godowski PJ,
IJ, Kuo SS, Nap
TA, Tumas D, Wi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTGTGCCAGTAGGATCTCCG 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           871
                                                                                                                                                                        SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0086414P.
99US-0113296P.
99WO-US000106
99WO-US005028.
99US-003804291.
99US-003804341.
2001US-00918585.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-00145129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCR primer #1
                                                                                                                                                                          IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA;
                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.9%;
                                                                                                                                                                                                                                                                                                                                                                                              Napier MA, P
Williams PM,
                                                                                                                                                                     246; 453pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24
     are nucleic
                                                                                                                                                                                                                                                                                                                                                                                         Botstein D, Desnoyers L, Eaton DL;
Rong S, Gao W, Gerber H, Gerrien ME;
Grimaldi JC, Gurney AL, Hillan KJ;
ier MA, Pan J, Paoni NF, Roy MA, Shelt-
lliams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15.6;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                   English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ٦;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         retinal disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                        먑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
```

```
RESULT 111
ADD72421/c
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cc mentioned above, a vector comprising a PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising the vector and producing PRO, a chimaeric molecule comprising CC pRO fused to a heterologous amino acid sequence, and an anti-PRO CC antibody. PRO337 polypeptide is useful for detecting a PRO4993 polypeptide. CC Similarly, PRO4993 polypeptide is useful for detecting PRO337 CC polypeptide in a sample suspected of containing PRO4993 polypeptide. CC polypeptide is useful for inking a CC polypeptide, and PRO1559 polypeptide is useful for inking a CC pRO725, PRO700 or PRO739. PRO4993 polypeptide is useful for linking a CC pro725, PRO700 or PRO739. PRO4993 polypeptide is useful for linking a bloactive molecule to a cell expressing PRO337 polypeptide. The bloactive molecule to a cell expressing PRO4993 polypeptide is useful for linking a bloactive molecule to a cell expressing PRO4993 polypeptide is useful for linking a bloactive molecule to a cell expressing PRO4993 polypeptide is useful for linking a bloactive molecule to a cell expressing PRO725, CC pRO700 or PRO739 polypeptide. PRO4993 polypeptide or anti-PRO337 CC polypeptide is useful for modulating the biological activity of the cell expressing PRO337 polypeptide, where the cell is killed. PRO337 polypeptide or anti-PRO4993 polypeptide, where the cell is killed. PRO337 CC polypeptide; and PRO4993 polypeptide; pRO725, PRO700 or PRO739 polypeptide or anti-PRO539 polypeptide or anti-PRO559 polypeptide; where the cell is useful for modulating the biological activity of the cell expressing PRO1559 polypeptide; where the cell is killed. PRO337 cc polypeptide; and PRO559 polypeptide or anti-PRO725, anti-PRO730 or PRO739 polypeptide or anti-PRO559 polypeptide; or anti-PRO725, anti-PRO700 or anti-PRO559 polypeptide or anti-PRO725, anti-PRO700 or anti-PRO559 polypeptide or anti-PRO725, anti-PRO700 or anti-PRO559 polypeptide or anti-PRO700 or PRO739 polypeptide is useful for modulating the biological activity of the cell express
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
              30-MAR-1998;
07-OCT-1998;
20-NOV-1998;
05-JAN-1999;
08-MAR-1999;
10-MAR-1999;
                                                                                                                                                                                                                                                                         Human; ss; PCR; secreted protein; transmembrane protein; PRO; ophthalmological; antiarthritic; osteopathic; antirheumatic; auditory; tumour growth; retinal disorder; sports-related joir articular cartilage defects; osteoarthritis; rheumatoid arthriwound healing; hearing loss; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2421/c
ADD72421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                          16-OCT-2003
                                                                                                                                                                                                           US2003194781-A1.
                                                                                                                                                                                                                                                                                                                                                                                  Human
                                                                                                                                                                                                                                                                                                                                                                                                                     29-JAN-2004
                                                                                                                                       19-OCT-2001;
                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               403
                                                                                                                                                                                                                                                                                                                                                                                    PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cccrecreageagercree
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                    871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP;
                                                                                                                                       2001US-00164929
                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a PRO protein.
                98US-0079920P.
98WO-US021141.
98WO-US024855.
99WO-US000106.
99WO-US005028.
99WO-US005190.
                                                                                                                                                                                                                                                                                                                                                                                  PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ი
ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>G</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 15.6;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ⊣
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₽.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .3e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                           arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                   cytostatic;
```

0;

```
15.APR-1999;
12.JUN-1999;
22.JUN-1999;
30.NCV-1999;
30.DEC-1999;
22.DEC-1999;
30.DEC-1999;
30.DEC-1990;
24.FEB-2000;
24.FEB-2000;
27.MAR-2000;
27.MAR-2000;
27.MAR-2000;
27.MAY-2000;
27.MAY-2000;
27.MAY-2000;
27.MAY-2000;
27.MAY-2000;
27.MAY-2000;
27.MAY-2000;
27.MAY-2000;
27.MAY-2000;
27.MAY-2001;
27.MAY-2001;
29.JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US008313

99WO-US012752

99WO-US012752

99WO-US012856

99WO-US028565

99WO-US031274

99WO-US031274

99WO-US031274

2000WO-US031274

2000WO-US031274

2000WO-US000277

2000WO-US000376

2000WO-US005841

2000WO-US013705

2001WO-US013705

2001WO-US01586

2001WO-US01780

2001WO-US01
```

Ashkenazi AJ Ferrara N, Goddard A, Kljavin IJ, Stewart TA, Ł NJ, Baker KP, Botstein D, Desnoyers L, Filvaroff E, Fong S, Gao W, Gerber H, Godowski PJ, Grimaldi JC, Gurney AL, Kuo SS, Napier MA, Pan J, Paoni NF, Tumas D, Williams PM, Wood WI; s L, Eaton DL;
wer H, Gerritsen ME;
AL, Hillan KJ;
AF, Roy MA, Shelto PL;

New secreted and transmembrane PRO nucleic acids and polypeptides, useful for stimulating the release of tumor necrosis factor alpha from human blood and stimulating the proliferation of differentiation of chondrocyte

SEQ No 246; 462pp; English

The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence and sequence identity to an amino acid sequence consent from 94 fully defined sequences a given in the specification (including PRO lacking its associated signal peptide, a PRO extracellular domain with or without its associated signal peptide). Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising PRO fused to a heterologous amino acid sequence, and an anti-PRO polypeptide is useful for detecting a PRO493 polypeptide is useful for detecting a PRO493 polypeptide is useful for detecting PRO377 polypeptide is useful for detecting PRO3159 polypeptide, and PRO1559 polypeptide is useful for detecting PRO1559 polypeptide, and PRO1559 polypeptide is useful for detecting PRO1559 polypeptide, and PRO1559 polypeptide is useful for linking a polypeptide is the toxin, radiolabel, or an antibody. The bioactive molecule to a cell expressing PRO493 polypeptide; PRO725, pRO700 or PRO739 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO493 polypeptide; PRO725,

```
CC PRO700 or PRO739 polypeptide are useful for linking a bioactive molecule Ct to a cell expressing PRO1559 polypeptide; and PRO1559 polypeptide is CC useful for linking a bioactive molecule to a cell expressing PRO725, CC PRO700 or PRO739 polypeptide. PRO4993 polypeptide or anti-PRO337 polypeptide is useful for modulating at least one biological activity of the cell expressing PRO337 polypeptide, where the cell is killed. PRO337 polypeptide or anti-PRO4993 polypeptide is useful for modulating the CC biological activity of the cell expressing PRO4993 polypeptide is useful for modulating the biological activity of the cell expressing PRO4993 polypeptide; PRO725, CC PRO700 or PRO739 polypeptide or an anti-PRO1559 polypeptide; PRO755 polypeptide; and PRO1559 polypeptide or anti-PRO725, anti-PRO700 or anti-PRO7039 polypeptide; are useful for modulating the biological activity of the cell expressing PRO4993 polypeptide. The CC polypeptides are useful for inhibiting tumour growth, retinal disorders, CC sports-related joint problems, articular cartilage defects.

CC consumals. The present sequence is a PCR primer used to isolate nucleic and manuals. The present sequence is a PCR primer used to isolate nucleic
                                                          encoding a PRO protein.
```

Sequence 24 BP; 5 A; 6 C; 9 G; 4 T; 0 Ç 0 Other;

밁 Ś Matches Query Match Best Local : 403 CCCTGCTCCAGCAGGCTCTCCG l Similarity 18; Conserv Conservative 1.9%; ·. Score 15.6; Pred. No. 2 ed. No. 2.3e+02; Mismatches 4 424 DB 1; Length Indels 0

RESULT 112 ADE17072/c ID ADE17072

standard;

24

ADE17072;

29-JAN-2004

PRO 871 PCR primer #1.

Human, ss. PCR; secreted protein; transmembrane protein; PRO; cytostatic ophthialmological; antiarthritic; osteopathic, antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer. cytostatic;

30-OCT-2003

2001US-00145016

06-MAY-1998; 22-DEC-1998; 05-JAN-1999; 08-MAR-1999; 12-APR-1999; 12-APR-1999; 18-FEB-2000; 99US-00284291. 99US-00380138. 2000WO-US004341. 2001US-00918585. 98US-0084414P. 98US-0113296P. 99WO-US000106. 99WO-US005028.

GENENTECH INC.

Ashkenazi A.
Ferrara N, F.
Iddard A, Goo.
IVIN IJ, KUT
TTA, AJ, Baker KP, Filvaroff E, J, Baker KP, Botstein D, Desnoyers L, Eaton DL; Filvaroff E, Fong S, Gao W, Gerber H, Gerritse Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Kuo SS, Napier MA, Pan J, Paoni NF, Roy MA, Tumas D, Williams PM, Wood WI; Eaton DL; Gerritsen ME; Shelton DI.

```
RESULT 113
ADE48580/c
CC transmembrane protein) having at least 80% amino acid sequence identity coin the specification (including PRO lacking its associated signal copptide, a PRO extracellular domain with or without its associated signal comprising a PRO extracellular domain with or without its associated signal comprising the vector comprising PRO, a chimacric molecule comprising CC mentioned above, a vector comprising PRO, a chimacric molecule comprising CC PRO fused to a heterologous amino acid sequence, and an anti-PRO antibody. PRO337 polypeptide is useful for detecting a PRO493 polypeptide. PRO725, PRO700 or PRO739 polypeptide is useful for detecting CC process death of the cell. PRO337 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO493 polypeptide is useful for linking a cC pro700 or PRO739 polypeptide are useful for linking a cc pro700 or PRO739 polypeptide is useful for linking a cc pro700 or PRO739 polypeptide is useful for linking a cc pro700 or PRO739 polypeptide is useful for linking a cc pro700 or PRO739 polypeptide is useful for linking a cc pro700 or PRO739 polypeptide is useful for linking a cc pro700 or PRO739 polypeptide are useful for linking a bioactive molecule to a cell expressing PRO493 polypeptide; pro725, cc polypeptide or anti-PRO493 polypeptide, and PRO159 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO725, cc polypeptide or anti-PRO37 polypeptide, where the cell is killed, PRO37 cplypeptide, and PRO159 polypeptide is useful for modulating at least one biological activity of the cell expressing PRO725, anti-PRO739 polypeptide is useful for modulating the biological activity of the cell expressing PRO725, anti-PRO700 or anti-PRO739 polypeptide; and PRO725, anti-PRO700 or anti-PRO739 polypeptide; and profice is useful for modulating the biological activity of the cell expressing PRO725, anti-PRO700 or anti-PRO739 polypeptide; and profic
                                                                                                                                                                                                                                                                                                                                                     뫄
                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New genes, useful for rheumatoid
                                                   Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic; ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis;
                                                                                                                                                Human
                                                                                                                                                                                 29-JAN-2004
                                                                                                                                                                                                                                                            ADE48580 standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       acid encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 40; SEQ ID NO 246; 459pp; English
                                                                                                                                                                                                                                                                                                                                                                                         403
                                 healing;
                                                                                                                                                PRO
                                                                                                                                                                                                                                                                                                                                                     24
                                                                                                                                                                                                                                                                                                                                                                                                                              18;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                     CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                         CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24
                                                                                                                                                871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and its encoded secreted and transmembrane polypeptides, treating e.g. lung or breast tumors, osteoarthritis, arthritis, obesity, diabetes, hyperinsulinemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP;
                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                              PCR primer #1.
                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         υı
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRO protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or wounds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P
                                                                                                                                                                                                                                                                                                                                                                                                                                              1.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 C;
                                   loss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     isolated
                                                                                                                                                                                                                                                                                                                                                                                                                            Score 15.6; D
Pred. No. 2.3e
0; Mismatches
                                 primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4
                                                                                                                                                                                                                                                                                                                                                       w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRO polypeptide (secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (secreted or sequence identity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24;
                                                                                                                                                                                                                                                                                                                                                                                                                              <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

```
02-JUN-2000
28-JUL-2000
24-AUG-2000
01-DEC-2000
20-DEC-2000
28-FEB-2001
22-MAR-2001
                                                                                                                                                                                                                                                                                                                         02-DEC-1999

02-DEC-1999

16-DEC-1999

16-DEC-1999

30-DEC-1999

05-JAN-2000

06-JAN-2000

11-FEB-2000

11-FEB-2000

18-FEB-2000

24-FEB-2000

24-FEB-2000
                                                                                                                                                                                                                                                                                  30-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                            14-MAY-1999;
02-JUN-1999;
30-NOV-1999;
                                                                                                                                  Kljavin
Stewart
                                                                                                                                               Ferrara
Goddard
                                                                                                                                                              Ashkenazi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JUN-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003104536-A1
                                                                                                                                                                           (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-OCT-2001;
                                                                                                                                  IJ, A,
                                                                                                                                                                           GENENTECH INC.
                                                                                                                                 i AJ, Baker KP,
N, Filvaroff E,
A, Godowski PJ,
IJ, Kuo SS, Nap
TA, Tumas D, Wi
                                                                                                                                                                                                            2000WO-US013705.

2000WO-US014941.

2000WO-US014941.

2000WO-US015264.

2000WO-US02338.

2000WO-US0233678.

2000WO-US0334956.

2001WO-US006520.

2001WO-US006520.

2001WO-US017809.

2001WO-US017809.

2001WO-US017809.
                                                                                                                                                                                                                                                                                                                                              2000WO-US000219.
2000WO-US000277.
2000WO-US000376.
2000WO-US003565.
                                                                                                                                                                                                                                                                                                      2000WO-US006319.
2000WO-US007532.
2000WO-US008439.
                                                                                                                                                                                                                                                                                                                          2000WO-US004341.
2000WO-US005004.
2000WO-US005841.
                                                                                                                                                                                         2001US-00918585
                                                                                                                                                                                                 2001WO-US021066.
2001WO-US021735.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001US-00166709
                                                                                                                                                                                                                                                                                                                                                                                        99WO-US030095
                                                                                                                                                                                                                                                                                                                                                                                                      99WO-US028551.
                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US012252.
                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US005190
                                                                                                                                   Napier MA, F
Williams PM,
                                                                                                                                   I J, Paoni
Wood WI;
```

Botstein D, Desnoyers L, Eaton DL; Fong S, Gao W, Gerber H, Gerritse; Grimaldi UC, Gurney AL, Hillan KJ; ier MA, Pan J, Paoni NF, Roy MA, Eaton DL; Gerritsen ME; Shelton ĎĽ;

New isolated nucleic acid encoding a PRO polypeptide, PRO337, useful in molecular biology, chromosome and generating antisense RNA and DNA, and in gene therapy gene ი ფ. mapping, PRO4993 in

Example 40; SEQ ID NO 246; 460pp; English.

The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity to an amino acid sequence chosen from 94 fully defined sequences as given in the specification (including PRO lacking its associated signal peptide, a PRO extracellular domain with or without its associated signal peptide). Also included are nucleic acids encoding the PRO proteins mentioned above, a vector comprising a PRO nucleic acid), a host cell comprising the vector and producing PRO, a chimaeric molecule comprising PRO fused to a heterologous amino acid sequence, and an anti-PRO antibody. PRO337 polypeptide is useful for detecting a PRO4993

To The

grands Grands

```
RESULT 114
ADE89681/c
ID ADE896
XX ADE896
XX ADE896
XX Long
DT 29-JAN
XX Human;
XX Ophtha
XX wound
XX Wound
XX Homo s
XX II-OCT
XX II-OC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC polypeptide in a sample suspected of containing PRO4993 polypeptide. CC Similarly, PRO4993 polypeptide is useful for detecting PRO337 CC polypeptide. PRO725, PRO700 or PRO739 polypeptide is useful for detecting CC PRO1259 polypeptide, and PRO1559 polypeptide is useful for detecting CC PRO725, PRO700 or PRO739. PRO4993 polypeptide is useful for linking a CC bioactive molecule to a cell expressing PRO337 polypeptide is useful for linking a CC causes death of the cell. PRO337 polypeptide is useful for linking a CC pro700 or PRO739 polypeptide are useful for linking a Dioactive molecule to a cell expressing PRO337 polypeptide; PRO705, CC PRO700 or PRO739 polypeptide are useful for linking a bioactive molecule to a cell expressing PRO337 polypeptide or anti-PRO337 CC pro700 or PRO739 polypeptide. PRO4993 polypeptide is useful for linking a bioactive molecule to a cell expressing PRO337 polypeptide or anti-PRO337 CC polypeptide is useful for modulating at least one biological activity of the cell expressing PRO337 polypeptide, where the cell is killed. PRO337 CC polypeptide or anti-PRO4993 polypeptide is useful for modulating the CC polypeptide; and PRO1559 polypeptide is useful for modulating the CC polypeptide; and PRO1559 polypeptide is useful for modulating the biological activity of the cell expressing PRO725, CC polypeptide; and PRO1559 polypeptide or an anti-PRO75, anti-PRO700 or anti-PRO739 polypeptide; PRO700 or anti-PRO739 polypeptide is useful for modulating the biological activity of the cell expressing PRO1559 CC polypeptide is useful for modulating the biological activity of the cell expressing PRO1559 ccl profile is useful for modulating the biological activity of the cell expressing PRO1559 polypeptide. PRO700 or anti-PRO739 polypeptide is useful for modulating the biological activity of the cell expressing PRO1559 polypeptide. PRO700 or anti-PRO739 polypeptide. PRO700 or anti-PRO739 polypeptide. PRO700 or anti-PRO700 or anti-PRO700 or anti-PRO700 or anti-PRO700 or anti-PRO700 or anti-PRO700 or ant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 18
  17-OCT-1997

03-NOV-1997

13-NOV-1997

21-NOV-1997

10-MAR-1998

11-MAR-1998

11-MAR-1998

11-MAR-1998

12-MAR-1998

13-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                         Human; ss; PCR; secreted protein; transmembrane protein; PRO; cytostatic ophthalmological; antiarthritic; osteopathic; antirheumatic; vulnerary; auditory; tumour growth; retinal disorder; sports-related joint problem; articular cartilage defects; osteoarthritis; rheumatoid arthritis; wound healing; hearing loss; primer.
                                                                                                                                                                                                                                       16-OCT-2001;
                                                                                                                                                                                                                                                                                                                           US2003130181-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADE89681;
                                                                                                                                                                                                                                                                                     10-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADE89681
                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRO 871 PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard; DNA; 24 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCTGCTCCAGCAGGCTCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B₽;
                                                                                                                                                                                                                                         2001US-00978375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
  97US-0062250P.
97US-0064249P.
97US-0065311P.
97US-0066364P.
98US-0077450P.
98US-0077632P.
98US-0077641P.
98US-0077641P.
98US-007764P.
98US-007780P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ហ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 15.6; D
Pred. No. 2.3e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G; 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          H
H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 μ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
         22-APR 1998
22-APR 1998
22-APR 1998
23-APR 1998
27-APR 1998
27-APR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-APR-1998,
21-APR-1998,
22-APR-1998,
22-APR-1998,
22-APR-1998,
22-APR-1998,
23-APR-1998,
23-APR-1998,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-APR-1998
09-APR-1998
09-APR-1998
09-APR-1998
09-APR-1998
15-APR-1998
15-APR-1998
15-APR-1998
15-APR-1998
21-APR-1998
21-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20. WAR-1998
20. WAR-1998
20. WAR-1998
20. WAR-1998
26. WAR-1998
26. WAR-1998
27. WAR-1998
27. WAR-1998
27. WAR-1998
27. WAR-1998
30. WAR-1998
31. WAR-1998
    98US-0080165P

98US-0080328P

98US-0080328P

98US-0080333P

98US-0081049P

98US-0081071P

98US-0081195P

98US-00811229P

98US-0081811P

98US-00815568P

98US-0082764P

98US-0082764P

98US-0082797P

98US-0082797P

98US-0082797P

98US-0082797P

98US-0082797P

98US-0082797P

98US-0083332P

98US-0083332P

98US-00834414P

98US-0084627P

98US-0084637P

98US-0084637P

98US-0084633P

98US-0084633P

98US-0084633P

98US-0084637P

98US-0084637P

98US-0085579P

98US-0085689P

98US-0085689P

98US-0085689P

98US-0085689P

98US-0085689P

98US-0085689P

98US-0085689P

98US-0085689P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0078886P.

98US-0078936P.

98US-0078939P.

98US-0079294P.

98US-0079663P.

98US-0079663P.

98US-0079664P.

98US-0079684P.

98US-0079689P.

98US-0079786P.

98US-0079786P.

98US-0079786P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0079923P.
98US-0080105P.
98US-0080107P.
```

```
RRESULT 115
RAVO1328/c
ID AAVO13
XX AVO13
AC AAVO13
XX S-anti
XX PCR pr
XX PCR pr
XX WO9731
XX WO9731
XX WO9731
XX WO9731
XX E2-F2B
XX 1CDNNS
XX CLONNI
PA (UDNS
XX PRESI
XX CLONNI
PA (UDNS
XX CLONNI
PA (UDNS)
XX CLON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 18
The present sequence represents a specifically claimed oligonucleotide PCR primer. The oligonucleotide can be used for polymerase chain reaction (PCR) amplification of DNA, specifically regions of specific genes that are conserved among mammalian species, i.e. pairs of oligonucleotides from the present specification represent universal mammalian sequence-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (FILV/)
(GAOM/)
(GERB/)
(GERR/)
(GODD/)
(GODD/)
(GODD/)
(GORM/)
(GURM/)
(GURM/)
(GURM/)
(GURM/)
(GURM/)
                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (PANJ/)
(PAON/)
(ROYM/)
(SHEL/)
(STEW/)
(TUMA/)
                                                                                                                                                     cross-species
                                                                                                                                                                   New oligonucleotide primers amplifying gene regions conserved a mammals - useful for developing genomic maps, isolating clones
                                                                                                                                                                                                                                                                                                        (UNMI)
                                                                                                                                                                                                                                                                                                                                                                                                                                           28-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9731012-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR primer;
universal ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S-antigen PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAV01328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV01328
                                                                                                                                                                                                                                                                                                                                                                22-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                     18-FEB-1997;
                                                                                                                                                                                                                                 1997-435083/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                403
                                                                                                                  Ν
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18;
                                                                                                                                                                                                                                                                    <u>ج</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GERRITSEN M I
GODDARD A.
GODOWSKI P J
GORNALDI J C.
GURNEY A L.
HILLAN K J.
KLJAVIN I J.
KUJAVIN I J.
KUO S S.
NAPIER M A.
PAN J.
PAN J.
PAN J.
                                                                                                                                                                                                                                                                                                        AIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SHELTON D
STEWART T
TUMAS D.
WILLIAMS P
WOOD W I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILVAROFF
FONG S.
GAO W.
GERBER H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCTGTGCCAGTAGGATCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCTGCTCCAGCAGGCTCTCCG 424
                                                                                                                Page 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      r; polymerase chain reaction; amplification; UM-STS;
mammalian sequence tagged site; genomic map; clone;
                                                                                                                                                                                                                                                                    Venta PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                        MICHIGAN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              primer for universal mammalian STS's.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                     comparisons
                                                                                                                                                                                                                                                                                                                                                                96US-0012061P
                                                                                                                                                                                                                                                                                                                                                                                                       97WO-US002403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    טי
                                                                                                              26pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.9%;
                                                                                                                                                                                                                                                                                                          STATE
                                                                                                                                                                                                                                                                    Yuzbasiyan-Gurkan
                                                                                                                English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 15.6;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1;
2.3e+02;
                                                                                                                                                                                                                                                                        <
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83
                                                                                                                                                                           and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                           making
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

26-JUL-1999; 28-JUL-1999; 29-OCT-1999; 30-NCV-1999; 02-DEC-1999;

98US-00864392 98US-0086410P 98US-0086486P 98US-0086486P 98US-0086486P 98US-00910109 98US-00910109 98US-00910109 98US-00910109 98US-00910109 98US-0100031 98US-0100031 99US-0113236P 99US-0113236P 99US-0113236P 99US-0113229 99US-0113229 99US-0113229 99US-0113229 99US-01131022 99US-0131022 99US-0131223 99US-0131222 99US-01313222 99US-0131222 99US-0131222 99US-0131222 99US-0131222 99US-0131222 99US-01312322 99US-01312322 99US-0131322 99US-0131322

14-MAY-1999; 02-JUN-1999; 16-JUN-1999; 23-JUN-1999; 07-JUL-1999;

28-APR-1999 21-APR-1999

05-JAN-1999; 08-MAR-1999; 10-MAR-1999; 12-MAR-1999; 29-MAR-1999;

20-NOV-1998; 22-DEC-1998; 23-DEC-1998;

20-NOV-1998

26-JUN-1998; 26-JUN-1998; 01-JUL-1998; 30-JUL-1998; 11-SEP-1998; 07-OCT-1998;

22-MAY-1998; 28-MAY-1998; 28-MAY-1998;

28-MAY-1998

22-MAY-1998; 22-MAY-1998; 22-MAY-1998;

10-DEC-1999
30-DEC-1999
30-DEC-1999
30-DEC-1999
05-JAN-2000
06-JAN-2000
11-FEB-2000
12-FEB-2000
12-FEB-2000
11-FEB-2000
11-FEB-2000
11-FEB-2000
11-FEB-2000
11-FAAR-2000
11-FAAR-2000
11-FAAR-2000
11-FAAR-2000
11-FAAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
22-MAR-2000
22-MAR-2000
23-MAR-2000
24-AUG-2000
24-AUG-2000
25-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000
21-MAR-2000

01-JUN-2001; 20-JUN-2001; 29-JUN-2001;

(ASHK/)
(BAKE/)
(BOTS/)
(DESN/)
(EATO/)
(FERR/)

ASHKENAZI A :
BAKER K P.
BOTSTEIN D.
DESNOYERS L.
EATON D L.
FERRARA N.

8 멂

ភិនិនិន្តិនិន្តិ

्राप्तः यक्तकः द

```
RABSULT 116
AAD33168
ID 3AD331
XX AAD331
XX AAD331
XX Phytan
XW Phytan
XW Phytan
XW Phytan
XW Phyer1
XW YPPET
XW YPET
XW TEVERS
XX Uniden
XX TEP1177
XX UNIDEN
XX TEP1177
XX UNIDEN
XX UNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                 relates to a method for treating or preventing non-insulin dependent diabetes mellitus (NIDDM) or other conditions associated with impaired glucose tolerance such as obesity using phytanic acid or its derivatives. The phytanic acid, their derivatives or their precursors are useful as pharmaceutical compounds or supplements to foods or feeds for the treatment or prevention of type II or NIDDM, hyperlipidaemia, hyperinsulinaemia, syndrome X, hypertension, hypertension impaired glucose tolerance and related obesity. They are also useful in insulin therapy in combination with known active compounds. The present sequence is apolipoprotein E (ApoE) cDNA amplifying reverse transcription PCR (RT-PCR) primer used in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hyperlipidaemia; hypertension; insulin therapy; hypercholesterolaemia; hypertriglyceridaemia; primer; apolipoprotein E; RT-PCR; ApoE; reverse transcription PCR; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tagged site (UM-STS) primers. The primers are used to develop genomic maps, to isolate clones from libbraries, to make cross-species comparisons and to develop additional genetic markers. UM-STS allow genomic comparisons to be made between more species
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New composition comprising phytanic acid or its derivatives, useful for treating or preventing non-insulin dependent diabetes mellitus, impaired
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 19 BP; 1 A; 7 C; 3 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to the use of phytanic acid or its derivatives the treatment or prevention of diabetes mellitus. The invention also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 3; Page 8; 29pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             glucose
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-270864/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-AUG-2000; 2000EP-00116848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-JUL-2001; 2001EP-00118230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-FEB-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EP1177789-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         glucose tolerance; food supplement; feed supplement; hyperinsulinaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAD33168;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAD33168 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fluehmann B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Phytanic acid; non-insulin dependent diabetes mellitus; NIDDM; obesity;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ApoE cDNA amplifying RT-PCR primer, ApE/p1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               326 AGAAGCTGTGGAGCAAC 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tolerance and related obesity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ROCHE VITAMINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAAGCTGGGGAGCAAC 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Heim M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hunziker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. 1.700; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 15.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15.4; DB 1; Length 19;
No. 1.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Weber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 סי
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

Sequence

20

BP;

თ Þ

4 C; 1.8%; 94.1%;

ω <u>ن</u>

N

Ţ,

0

₫;

0 Other

밁 S

CAGGAATTTGGCATTCC CAGGAACTTGGCATTCC

տ

471

487

Query Match Best Local S Matches 16

l Similarity 16; Conser

Conservative

0;

1.8%;

Score 15.4; Pred. No. 2e+); Mismatches

2e+02;

DB 1;

Length Indels

21,

<u>.</u>

Gaps

0

Local Similarity

Score 15.4; DB 1; Length 20; Pred. No. 1.9e+02;

```
ARZELIT 117
ARZELIS
AC ARZELIS
AC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                  CC PCR primers AAZ21589-Z21594 are used to amplify the HIV integrase cDNA.

CC This primer corresponds to nucleotides 4016-4036 of the integrase

CC sequence. The HIV integrase (IN) cDNA was used in the generation of an L-

CC chicoric acid resistant strain of HIV. The invention relates to new

CC compounds that are IN inhibitors. The inhibitors are novel compounds that

CC compounds that are in inhibit HIV integrase. The inhibitors are

CC structural analogues of bis-(3,4-Dihydroxycinnamoyl) tarraric acid.

CI Integrase has the minimal activities needed for integration. In vitro the

CC enzyme processes the HIV DNA for insertion in to the host cell's nucleus.

CC IN also cleaves double stranded DNA and facilitates the insertion of the

CC HIV DNA in to the cleavage site. IN also covalently links the HIV DNA to

CC the cleaved ends of the host DNA. The new compounds hock the actions of

CC IN, and therefore block viral replication. The compounds are synergistic

CC with reverse transcriptase and protease inhibitors, acting at a different

CC part of the HIV replication cycle. The new inhibitors are used,

CC preferably in combination therapy with reverse transcriptase inhibitors

CC and protease inhibitors in the treatment of HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCR primer; HIV; integrase; IN; inhibitor; DNA insertion; treatment; viral replication; reverse transcriptase; protease inhibitor; combination therapy; resistant strain; ss.
      Sequence 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 35; 68pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bis-(3,4-Dihydroxycinnamoyl)tartaric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-571930/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-MAR-1998;
17-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ21594;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ21594 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9948371-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (REGC ) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  primer INSPR for amplifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immunodeficiency virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 TCCAGGAAGAGCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ψ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCAGGAAGAGCTCCAG
      BP; 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CALIFORNIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          King PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0079764P.
98US-0093208P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US006700
      A; 4 C; 6 G; 5 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Reinecke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HIV integrase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 న్ల
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  acid analogues for
      0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

```
RESULT 119
AAC58043/c
ID AAC580
XX AAC580
XX AC580
XX L
AC AAC580
XX L
AC BAC580

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 118
AAV38033/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents a construction oligonucleotide for SCEPO section 3 as part of the assembly of a human erythropoietin (EPO) with yeast preferred codons, used in an example from the present invention. The present invention describes recombinant human EPO which causes bone marrow cells to increase production of reticulocytes or red blood cells, where the polypeptide is the product of expression in CHO (Chinese hamster overy) cells of an exogenous DNA sequence encoding human EPO. EPO is potentially useful in the diagnosis and treatment of blood disorders characterised by low or defective red blood cell production
                                                                                                           Human; tumour; diagnosis; neoplidentification; tumourigenesis;
                                  Homo sapiens
                                                                                                                                                                                              Human PRO1410 forward PCR
                                                                                                                                                                                                                                                     25-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                AAC58043 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     treatment of blood disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Recombinant human erythropoietin - potentially useful for diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1998-261957/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; erythropoietin; EPO; bone marrow; reticulocyte; red blood cell; expression; CHO; chinese hamster ovary cell; diagnosis; blood disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCEPO section 3 construction oligonucleotide 10 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV38033 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lin F;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AU688723-B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (KIRI ) KIRIN AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
16; Conserv
                                                                                      PCR primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCTTCAGAAAGTTGTT 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCTICAGAAAGTTATT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP; 8 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 76; 100pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.8%;
larity 94.1%;
Conservative
                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97AU-00046867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97AU-00046867
                                                                                                                                                                                                                                                                                                                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 C; 5
                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23
                                                                                                                neoplastic disease; proliferation; cancer;
nesis; anticancer; detection; hybridisation;
                                                                                                                                                                                              primer
                                                                                                                                                                                                                                                                                                                                                                뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 15.4; DB 1; Length 23; Pred. No. 2.4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                 SEQ
                                                                                                                                                                                                 ID NO:65.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

```
RESULT 120
AAF54523/c
ID AAF545
밁
                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-SEP-1999;
29-OCT-1999;
30-NOV-1999;
01-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the antibodies, or an antisense oligonucleotide which hybridises to genes encoding (I), can be used to inhibit tumour growth, preferably by inducing cell death. Methods from the present invention can be used to identify compounds which inhibit the biological activity of (I). AAC58019 to AAC58102 represent PCR primers and hybridisation probes used in examples from the present invention for human PRO sequences. AAC58103 to AAC58122 and AAB24021 to AAB24040 represent human PRO polymucleotide and protein sequences given in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              activity and can be used to diagnose tumours in mammals, by detecting complex formation when the antibody is contacted with test cells. Increased expression of genes encoding (I) can also be detected to diagnose tumours. Agents which inhibit the activity of (I), especially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antibodies specific for PRO polypeptides, used to diagnose and the growth of tumors in mammals, and to identify inhibitors of polypeptide activity or expression.
                                                          28-DEC-2000
                                                                                                                  Unidentified
                                                                                                                                                Secreted; transmembrane; gene therapy; ss
                                                                                                                                                                             Primer #132 used in the identification of proteins
                                                                                                                                                                                                           02-APR-2001
                                                                                                                                                                                                                                       AAF54523;
                                                                                                                                                                                                                                                                    AAF54523 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 4 A; 4 C; 6 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention describes an antibody that binds to a human protein (I) selected from: PRO381; PRO1269; PRO1410; PRO1375; PRO1780; PRO3434; PRO19927; PRO1367; PRO1295; PRO1293; PRO3303; PRO4344; PRO4354; PRO4397; PRO4407; PRO1555; PRO1096; PRO2038; and PRO2262. (I) has anticancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 20; Page 122; 226pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-DEC-1999;
23-JUN-1999;
                           18-FEB-2000; 2000WO-US004342
                                                                                       WO200078961-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-594320/56.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Botstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-SEP-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200053750-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                          621 TCAACCAGCGCTCAGTCCCG 640
                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 17; Conserv
                                                                                                                                                                                                                                                                                                                                             TAAACAAGCGCTCAGTCCTG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Goddard A,
                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US005028.
99WO-US020111.
99US-0162506P.
99WO-US028313.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US028634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US028551
                                                                                                                                                                                                                                                                                                                                                                                                                     1.8%;
                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gurney
                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                     Score 15.2; DB 1;
Pred. No. 2.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ΑĿ,
                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Roy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Watanabe
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  especially
                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wood
```

print to

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 121
ABA82154
                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-JUL-1999;
26-JUL-1999;
01-SEP-1999;
29-CCT-1999;
30-NOV-1999;
02-DEC-1999;
16-DEC-1999;
05-JAN-2000;
06-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gao W, G
Pan J, P
Williams
                                                                                                                                                         Human; high bone mass; HBM gene; Zmax1 gene; chromosome 11; 11q13.3; sequence tagged site; STS; osteoporosis; osteopathic; gene therapy; antisense therapy; vaccine; bone disorder; Paget's disease; adapter; sclerostosis; osteomalacia; fibrous dysplasia; PCR primer; linker; s
                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to secreted and transmembrane protein These proteins and the DNA encoding them may be used as hybridizat probes, in chromosome and gene mapping and in the generation of an sense RNA and DNA. They may also be used used to generate either transgenic animals or knockout animals which are in turn useful fo development and screening of therapeutically useful reagents. The acids may also be used in gene therapy
                              05-APR-2000;
05-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Secreted and transmembrane proteins useful as hybridization probes, in c
                                                                                                        WO200177327-A1.
                                                                                                                             Synthetic.
                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                  Zmax1
                                                                                                                                                                                                                                        25-JAN-2002
                                                                                                                                                                                                                                                             ABA82154;
                                                                                                                                                                                                                                                                                  ABA82154 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 143; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-071395/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GETH
                                                             21-JUN-2000;
                                                                                   18-OCT-2001
         (GENO-) GENOME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KP, Botstein |
, Goddard A, (
, Paoni NF, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _
                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                  17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PM,
                                                                                                                                                                                                                                                                                                                                     TAAACAAGCGCTCAGTCCTG
                                                                                                                                                                                                                                                                                                                                                         TCAACCAGCGCTCAGTCCCG 640
                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                  region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0144758P.
99US-014569BP.
99WO-US020111.
99US-0162506P.
99WO-US028313.
99WO-US028551.
99WO-US030095.
2000WO-US030095.
                                                                                                                                                                                                                                                                                                                                                                                                                            BP; 4 A; 4 C; 6 G; 6 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                              2000WO-US016951
                              2000US-00543771.
2000US-00544398.
                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wood
         THERAPEUTICS CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       507;
                                                                                                                                                                                                                 physical map preparation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Roy MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               D, Desno
Godowski
                                                                                                                                                                                                                                                                                                                                                                                           1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     787pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Desnoyers L, Eaton DL,
owski PJ, Grimaldi CJ, G
WA, Smith V, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                Score 15.2; D
Pred. No. 2.1e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                       \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      s and nucleic acids designated PRO, chromosome and gene mapping and ge
                                                                                                                                                                                                                                                                                                                                                                                            ; DB 1;
2.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                             0 Other;
                                                                                                                                                                                                                  STS marker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gurney AL,
TA, Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hillan KJ;
Watanabe C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     proteins. ridization
                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and gene
                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             anti-
                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CK;
                                                                                                                                                                                                                                                                                                                                                                                   0
```

```
RESULT 122
AB145369/c
ID AB1453
XX AB1453
AC AB1468
AC AB1668
AC AB1688
AC A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SXCCCCCCCCXXXXIIX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mass (HBM) gene, which are found on chromosome 11q13.3. The Zmax1 and HBM genes have osteopathic activities. The genes can be used in gene therapy, antisense therapy and in the production of vaccines. They can be used in the diagnosis and treatment of bone disorders including osteoporosis, Paget's disease, sclerostosis, osteomaliacia and fibrous dysplasia. ABA82038 to ABA82700 and AAG68168 to AAG68193 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New high bor modulating !
The present invention describes a method of arraying genome clones. The method comprises: (a) clones of the genomic libraries contained in multiwell plates numbered for discrimination are mixed in each of the multiwell plates; (b) a primer designed based on the chromosome marker sequence is added to the mixture to carry out an amplification reaction; (c) a signal corresponding to the marker is detected from the resultant amplified product to specify the discrimination Nos. of the multiwell plates containing the clones having said marker sequence; (d) the order of the markers is changed so that the same discrimination Nos. succeed to the maximum in the specified discrimination Nos. to array the multiwell plates; (e) the clones in the multiwell plates of the specified discrimination Nos. are mixed respectively in each wells of longitudinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-NOV-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JP2001321190-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human chromosome 21q22.1 PCR primer SEQ ID NO:2413.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABL45369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABL45369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Carulli JP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (RIKA )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2002-144136/19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     617 CATCTCAACCAGCGCTCAGT 636
                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIKAGAKU KENKYUSHO GENOTEX YG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bone mass (HBM)
                                                                                                                                                                                                                                                                                                                                                 Page 52; 528pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                    genome clones.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATCCCAACCATCACTCAGT 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 BP; 6 A; 9 C; 1 G; 4 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Page 33; 443pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001JP-00068285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000JP-00066716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Little
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1p36-35; chromosome 21q22.1; genetic analysis; genome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and
the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Recker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15.2;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zmax1 genes a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Johnson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .1e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and proteins useful e.g. osteoporosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ĭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for
```

0;

ő

SSSSSSSSSSSSS

```
RESULT 123
ABK44387/c
ID ABK443
XX ABK443
XX ABK443
XX DT 05-JUN
XX Nuclei
KW Ss; pl
XX Synthe
PN W02002
XX W02002
XX W02002
XX W02002
XX W02002
XX W02002
XX U04-JUI
PR 05-JUI
PR 05-JUI
PR 05-JUI
PR 05-JUI
PR 05-JUI
PR 06-APF
XX U1AKI
XX Detect
PT With (
XX The in
CC Afnu
CC Sequei
CC Sequei
CC Sequei
CC Sequei
                                                                    Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local !
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and lateral directions; (f) the mixed clones are cultured and the resultant cultures are amplified by using the above primer; (g) signals are detected from the amplified products; (h) the clones in the multiwell plates are specified from the detected result; and (i) the clones are reconstituted as the positions on the chromosome and arrayed. The microarray is useful for gene analysis. ABL42957 to ABL45322 represent PCR primers for human chromosome 1p36-35 DNA, and ABL45323 to ABL45634 represent PCR primers for human chromosome 21q22.1, which are specifically claimed for use in the present invention
                                                                                                                                                                            The invention describes a labeled polynucleotide probe that is partly hybridisable with a polyadenine nucleotide moiety of a target nucleic acid. The method discussed in the invention is useful for the detection of nucleic acids in gene engineering, biochemistry and medicine. This sequence represents a PCR primer used in the amplification of onco-genes and associated with the polynucleotide probes discussed in the invention
                                                                                                                                                                                                                                                                                                                                             Detection of nucleic acids, useful in gene engineering, biochemistry and medicine, comprising a labeled polynucleotide probe partly hybridizable with a polyadenine nucleotide moiety of a target nucleic acid,.
                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JUL-2000; 2000JP-00204177.
26-APR-2001; 2001JP-00129603.
                                                                                                                                                                                                                                                                                                            Example 1; Page 40; 51pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-179635/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-JUL-2001; 2001WO-JP005783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200202814-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human onco-gene pl6, PCR primer #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABK44387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABK44387 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20 BP; 2 A; 8 C; 3 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TAKI ) TAKARA SHUZO CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         314 GAAAGACTGCAGAGAAGCTG 333
20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                      l Similarity
17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l Similarity
17; Conserv
                                                                                                                                             20
CGTCTGCCCGTCCACCTGGC 1
                             cercreccerccrecrec 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGGAATGCAGAGAAGCTG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Meiyanto
                                                                                                                                             BP; 4 A;
                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                  1.8%;
85.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene engineering; medicine; onco-gene; PCR; primer;
                                                                                                                                             5 C; 10 G; 1 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ishida
                                                                      0;
                                                                    Score 15.2; D
Pred. No. 2.1e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 15.2;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Takeya
                                                                                      .1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .1e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1;
                                                                                                          DB 1; Length 20;
                                                                                                                                             0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ή
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Asada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 20;
                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kato
                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
```

밁 á

밁 Š

RESULT 125

```
RESULT 124
ABK229
XX
ABC229
XX
ABK229
XX
ABK22
                                                   Ś
밁
                                                                                                                                                                                                                                                                                                          The invention relates to a method for identifying a molecule involved in clipid regulation comprising identifying a molecule that binds to or inhibits binding of a molecule to high bone mass (HBM) or its wild type companies identified by the method are useful for treating, diagnosing, preventing or screening for normal and abnormal lipid-cassociated conditions, including arteriosclerosis, cardiovascular conditions, and osteoporosis. The compounds may also be used in the treatment or prevention of diabetic atherosclerosis, neurovascular conditions caused by plaque build-up, poor circulation due to plaque build-up and associated poor wound healing. The methods may be used in gene therapy, pharmaceutical development, and diagnostic assays for bone development disorders. Molecules identified by comparison of Zmaxl and HBM systems can be used as surrogate markers in pharmaceutical development, in diagnosis of human or animal bone disease, and in the treatment of bone diseases. Sequences ABK22776-ABK23411 represent cDMA molecules encoding human Zmaxl and HBM, and PCR primers, probes, linkers and adapters of the invention
                                                                                                             Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Identifying molecules involved in lipid regulation, useful for diagnosing, treating or preventing e.g., arteriosclerosis, comprises identifying a molecule that binds to high bone mass gene or its corresponding wild type gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; mouse; Zmax1; HBM; high bone mass gene; lipid regulation; stroke; lipid-associated condition, arteriosclerosis; cardiovascular disease; ss; osteoporosis; atherosclerosis; diabetic atherosclerosis; plaque build-up; neurovascular condition; wound healing; gene therapy; PCR primer; probe; bone development disorder; antiarteriosclerotic; cardiovascular;
                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GENO-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 38; 409pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-097784/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Carulli JP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-MAY-2000; 2000US-00578900.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAY-2001; 2001WO-US016946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200192891-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human Zmax1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABK22951 standard;
                                                             617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENOME THERAPEUTICS CORP.
UNIV CREIGHTON SCHOOL MEDICINE.
                                                             CATCTCAACCAGCGCTCAGT 636
                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                          BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cDNA forward PCR primer
                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Little RD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                          6 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA;
                                                                                                                                                      1.8%;
                                                                                                                                                                                                                                                          9 C; 1 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Recker RR,
                                                                                                                       ; Score 15.2; ; Pred. No. 2. 0; Mismatche
                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Johnson
                                                                                                                                                             1e+02
                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ĭ
                                                                                                                                                                                         Length
                                                                                                                                  Indels
                                                                                                                                                                                                   20;
                                                                                                                              0
                                                                                                                              Gaps
```

ABN80967/c ID ABN809

ABN80967 standard; DNA; 20

ΒP

C.

```
Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                  The present invention describes a compound (I) 8-50 nucleobases in length targeted to a nucleic acid molecule encoding caspase 7, which specifically hybridises with and inhibits the expression of caspase 7. (I) has antisnflammatory and cytostatic activities, and can be used in antisense therapy and as an inhibitor of caspase 7 expression. (I) is useful for inhibiting the expression of caspase 7 in human cells or tissues, and for treating a human having a disease or condition associated with caspase 7 including inflammatory condition, hyperproliferative disorder (cancer), or bone metabolism or cholesterol disorder. (I) is useful for diagnostics, therapeutics, prophylaxis and as research reagent and kits. (I) is useful prophylactically to prevent or delay infection, inflammation or tumour formation. The present sequence represent a mouse caspase 7 inhibiting chimeric phosphorothicate or consignuclectide having 2 hyper and a deoxy gap, which is used in an example form the present invention.
                                                                                                                                                                                                                                                                                                                                                                   Novel antisense compounds targeted to nucleic acids encoding caspase for modulating gene expression and treating diseases associated with expression of caspase 7 in humans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Caspase 7; antisense modulation; antiinflammatory; cytostatic; antisense therapy; caspase 7 inhibitor; inflammatory condition; hyperproliferative disorder; cancer; bone metabolism; infection; cholesterol disorder; inflammation; tumour; phosphorothioate; ss
                                                            Sequence 20
                                                                                                                                                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-404806/43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-SEP-2000; 2000US-00659860.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200222640-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mouse caspase 7 phosphorothioate oligonucleotide SEQ ID NO:145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABN80967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ISIS-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-SEP-2001; 2001WO-US028232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modified_base
                                                                                                                                                                                                                                                                                                                                       3; Page 89; 138pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ISIS PHARM INC
                                                                                        from the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Watt AT;
                                                            BP;
 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= p
/mod_base= OTHER
/note= "2'-methoxyethyl (
                                                           3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note= "Phosphorothicate linkages"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *tag=
             1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _base= OTHER
== "2'-methoxyethyl
                                                           4 C; 9 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              _base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
0; Mismatches
              Score 15.2; DB 1.
Pred. No. 2.1e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (2'-MOE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (2'-MOE) wing"
                           Length 20;
 Indels
 0
 Gaps
 0
```

S

612 GTGGCCATCTCAACCAGCGC 631

S

466 AGCTCCAGGAACTTGGCATT

Conservative

0; Mismatches

1.8%;

Score 15.2; DB 1 Pred. No. 2.1e+02

DB 1;

Length Indels

20;

or P

0

Gaps

0

Query Match
Best Local Similarity
Matches 17; Conserv

Sequence

20 BP; 4 A; 6 C; 6

G; 4 T; 0 U; 0 Other;

```
ARESULT 126
ARESOLOT 126
ARESOLOT 126
ARESOLOT ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
ARESOLOT
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                    preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing or depleting levels of, or reducing sensitivity to adenosine, reducing levels of adenosine receptor, producing bronchodilation, increasing levels of ubiquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO at fip.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                           junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and uniquinone. A composition of the invention has antiinflammatory, antiallergic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a novel pharmaceutical composition, which has first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5 or 3 end genomic flanking regions, 5 and 3 intron-exon junctions, or regions within 2-10 nucleotides of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; antisense; lung dysfunction; nasal airway dysfunction; antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; SEQ ID NO 3302;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-229219/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-APR-2001; 2001US-0286137P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-APR-2002; 2002WO-US013135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200285308-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABZ88060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABZ88060 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (EPIG-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20 GTGCCCATATCCACCAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ώ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EPIGENESIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Li Y,
Tang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sandrasagra A,
L, Shahabuddin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               872pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Katz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pabalan J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Aguilar
```

밁

20

AGCTCCAGGATCTCGGCAGT 1

```
RESULT 127
ACC45534
                                                                                                                           The invention relates to novel transgenic animals expressing the high CC bone mass (HBM) gene, expressing the corresponding wild type HBM gene, comprising an alteration of the gene encoding LRP5 or LRP6, or expressing CC an IRP5 that is modulated by an altered gene control sequence introduced by homologous or non-homologous recombination. The transgenic animals are for the study of bone density modulation or bone mass modulation. The convention has osteopathic and cytostatic activity. The polymucleotides of the invention may have a use in gene therapy. The transgenic animals and nucleic acids are for the study of bone density modulation, where the bone mass is modulated relative to non-transgenic animals and the species in more than one parameter selected from bone density, bone cransgenic animals, nucleic acids and methods are useful for identifying molecules involved in bone development, and for developing pharmaceutical compositions, which may be employed for treating or preventing bone compositions, which may be employed for treating or preventing bone compositions, which may be employed for treating or preventing bone compositions, osteoporosis, osteomalacia, rickets, paget's disease, or neoplasms of the bone. The transgenic animals and nucleic acids are also useful in methods for diagnosing diseases involved in bone development, or characterised by reduced bone density or mass. The present sequence is
  Query Match
Best Local S
Matches 17
                                                                            Sequence 20 BP; 6 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-MAY-2001; 2001US-0290071P.
17-MAY-2001; 2001US-029131F.
01-FEB-2002; 2002US-035058P.
04-MAR-2002; 2002US-0361293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; high bone mass; HBM; LRP5; LRP6; transgenic; bone mass modulation; gene therapy; bone density modulation; bone strength; trabecular number; bone size; bone tissue connectivity; bone disease; osteoporosis; PCR; osteomalacia; rickets; Paget's disease; neoplasm of the bone; primer; ss.
                                                                                                               or characterised by reduced bone de
used in the exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New transgenic animals (e.g. mice), useful as models for studying bone density modulation, developing drugs for treating or preventing bone diseases (e.g. osteoporosis), or diagnosing diseases characterized by reduced bone density.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 54; 603pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-129278/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-MAY-2002; 2002WO-US014876.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human HBM STS marker forward primer #57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACC45534 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         שי
  Similarity
17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENOME THERAPEUTICS CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bex FJ,
  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Yaworsky PJ,
                  1.8%;
                                                                            9 C; 1 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              묡
    0
Score 15.2; D
Pred. No. 2.1e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bodine PV
                                                                                                                   invention
                    .1e+02;
                                       DB 1; Length 20;
    Indels
    .
•
    Gaps
    Ö
```

```
RESULT 128
ACD68562/c
ID ACD685
 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; secreted and transmembrane protein; PRO; angiogenesis; endothelial cell proliferation; wound healing; immune response; T-lymphocytes proliferation; neonatal heart hypertrophy; tumour; cardiac insufficiency disorder; calcium flux; inflammation; vascular endothelial growth factor-stimulated proliferation; mammalian kidney mesangial cell proliferation; Berger disease; nephropathy; Schanlein-Henoch purpura; celiac disease; Crohn's disease dermatitis herpetiformis; diabetes; haemoglobin switch; insulinaemia; pancreatic beta-cell precursor cell differentiation; thalassemias; obesity; auditory hair cell regeneration; hearing loss; bone disorder; cartilage disorder; sports injury; arthritis; PCR; primer; ss.
                                                                                                                                            15-SEP-1998;
15-SEP-1998;
15-SEP-1998;
16-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                      09-SEP-1998
                                                                                                                                                                                                                                                                                                                          09-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                 01-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US2003073130-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel human secreted and transmembrane protein related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACD68562 standard; DNA;
                                                                                                                                                                                                                                                          10-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  617 CATCTCAACCAGCGCTCAGT 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ь
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATCCCAACCATCACTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-00015869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
98US-0100683P
98US-0100684P
98US-0100710P
98US-0100711P
98US-0100930P
98US-0100848P
98US-0100848P
98US-0101014P
98US-0101014P
                                                                                                                                                                             98US-0099808P.
98US-0099812P.
98US-0099815P.
98US-0100385P.
98US-0100388P.
                                                                                                                                              98US-0100390P.
98US-0100584P.
98US-0100627P.
                                                                                                                       98US-0100661P.
98US-0100662P.
                                                                                                                                                                                                                                               98US-0099763P.
98US-0099792P.
                                                                                                                                                                                                                                                                      98US-0099754P.
                                                                                                                                                                                                                                                                               98US-0099642P.
98US-0099741P.
                                                                                                                                                                                                                                                                                                       98US-0099602P
                                                                                                                                                                                                                                                                                                               98US-0099596P.
                                                                                                                                                                                                                                                                                                                                       98US-0099536P
                                                                                                                                                                                                                                                                                                                                                  98US-0098843P
                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0098716P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 primer #137.
```

disease;

25 t

```
유정
                                                                Query Match
Best Local S
Matches 17
                                                                                                                               Novel isolated PRO poly PRO1787 that modulate gmuscle cells, and are unsulinemia.
                                                                                                                                                                                                                                                                                                                                                                  17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
19-NOV-1999;
10-JEC-1999;
20-JUL-1999;
20-JUL-1999;
20-JUL-1999;
20-JUL-1999;
10-SEP-1999;
11-SEP-1999;
10-SEP-1999;
11-SEP-1999;
11-MAN-2000;
11-FEB-2000;
11-FEB-2000;
11-MAN-2000;
11-MAN-2000;
11-MAN-2000;
11-MAN-2000;
11-MAN-2000;
11-MAN-2000;
11-MAR-2001;
11-MA
                                                                                                                                                                                                                                                Baker KP, Botstein I
Gao W, Goddard A, (
Pan J, Paoni NF, Ro
Williams PM, Wood W
                                                                                                                                                                                                                                                                                                                                      (GETH
                                621
                                                                                                                                                                                                                   2003-585293/55.
                                                                                                                                                                                                                                                                                                                                      _
 20
                                                              ch 1.8%;
l Similarity 85.0%;
17; Conservative
                                                                                                                                                                                                                                                                                                                                      GENENTECH
                 TCAACCAGCGCTCAGTCCCG
                                                                                                                                                                                                                                                                                                                                                                                 98US-0108806P
98US-0108867P
98US-0108867P
98US-0108849P
98US-0108849P
98US-0108859P
98US-0108859P
98US-0114723P
99US-0114723P
99US-0114723P
99US-0114723P
99US-0114723P
99US-0114723P
99US-0146598P
99US-0162506P
99US-0162506P
99US-0162506P
99US-0162506P
99US-0162506P
99US-0162506P
99US-0162506P
99US-0162506P
99US-0162508P
2000WO-US003572
2000WO-US003572
2000WO-US0368P
                                                                                                                                                                                                                                                   in D, Desnoyers )
, Godowski PJ, (
Roy MA, Smith )
i WI;
                                                                                                                                             polypeptides e.g. PRO1130, PRO1275, PRO1418, PRO
ate glucose or free fatty acid uptake by skeletal
are useful for treating diabetes, hyper- or hypo-
                                                                Score
Pred.
0; Mis
                                  640
                                                                                                                                                                                                                                                                  s L, Eaton DL,
Grimaldi JC, (
h V, Stewart TA,
                                                                  No. 2.1e+02;
smatches 3;
                                                                                No.
                                                                                    , ,
, ,
                                                                                                    DB
                                                                                                                                                                                                                                                                       TA,
                                                                                                                                                                                                                                                                     , Ferrara N,
Gurney AL,
TA, Tumas D,
                                                                                                  Length
                                                                  Indels
                                                                                                      20;
                                                                                                                                                                                                                                                                                                    ˈz
                                                                                                                                                                                                                                                                       , Fong S;
Hillan KJ;
, Watanabe (
                                                                    0;
                                                                    Gaps
                                                                                                                                                                                        PRO1555
                                                                                                                                                                                                                                                                         6
                                                                    0
```

18-SEP-1998;
23-SEP-1998;
23-SEP-1998;
23-SEP-1998;
23-SEP-1998;
23-SEP-1998;
23-SEP-1998;
23-SEP-1998;
24-SEP-1998;
24-SEP-1998;
24-SEP-1998;
29-SEP-1998;
29-CCT-1998;
29-CCT-1998;
29-CCT-1998;
29-CCT-1998;
20-CCT-1998;
21-CCT-1998;
21-CCT-1998;
21-CCT-1998;
22-CCT-1998;
23-SEP-1998;
23-SE

98US-0101071P
98US-0101471P
98US-0101471P
98US-0101471P
98US-0101475P
98US-0101476P
98US-0101476P
98US-0101476P
98US-0101738P
98US-0101738P
98US-0101738P
98US-0101738P
98US-0101738P
98US-010216P
98US-0102240P
98US-0102240P
98US-01022330P
98US-01022487P
98US-01022684P
98US-0102684P
98US-0103315P
98US-0103687P
98US-0103687P
98US-0105694P
98US-0105694P
98US-0106033P
98US-0106033P
98US-0106033P
98US-0106334P

```
15-SEP-1998

15-SEP-1998

16-SEP-1998

16-SEP-1998

16-SEP-1998

16-SEP-1998

16-SEP-1998

17-SEP-1998

18-SEP-1998

18-SEP-1998

18-SEP-1998

18-SEP-1998

23-SEP-1998

23-SEP-1998

23-SEP-1998

23-SEP-1998

23-SEP-1998

23-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-SEP-1998
01-SEP-1998
01-SEP-1998
01-SEP-1998
02-SEP-1998
02-SEP-1998
02-SEP-1998
09-SEP-1998
09-SEP-1998
09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; ss; PCR; secreted protein; transmembrane protein; PRO; vulnerary; cardiant; antidiabetic; anorectic; antiarthritic; angiogenesis; cancer; adrenal cortical capillary; endothelial cell growth; wound healing; stimulated T-lymphocyte proliferation; immune response suppression; neonatal heart hypertrophy; cardiac insufficiency disorder; vascular endothelial growth factor; inflammation; mononuclear cell; eosinophil; diabetes; obesity; or hyper-insulinaemia; hypo-insulinaemia; chondrocyte redifferentiation; bone disorder; cartilage disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2003044841-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sports
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human secreted/transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACH04664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      injury; arthritis; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001US-00006856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
98US-0098716P

98US-0098739P

98US-0098730P

98US-0098313P

98US-0099536P

98US-0099536P

98US-0099538P

98US-0099538P

98US-0099741P

98US-0099753P

98US-0100385P

98US-0100662P

98US-0100663P

98US-0100662P

98US-0100662P

98US-0100663P

98US-0100663P

98US-0100663P

98US-0100663P

98US-0100663P

98US-0100663P

98US-0100663P

98US-0100663P

98US-010071P

98US-010071P

98US-010071P

98US-010071P

98US-0101474P

98US-0101474P

98US-0101474P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101477P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein PRO1410 Taqman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 primer #1.
   \(\text{\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\tex{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\text{$\t
29-SEP-1998

29-SEP-1998

30-SEP-1998

30-SEP-1998

30-SEP-1998

30-SEP-1998

01-OCT-1998

01-OCT-1998

07-OCT-1998

07-OC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-SEP-1998;
24-SEP-1998;
24-SEP-1998;
24-SEP-1998;
98US-0102307P.
98US-0102331P.
98US-0102484P.
98US-0102570P.
98US-0102570P.
98US-0102570P.
98US-0102570P.
98US-0102570P.
98US-0103687.
98US-0103449P.
98US-0103314P.
98US-0103314P.
98US-0103314P.
98US-0103401P.
98US-0103401P.
98US-0103679P.
98US-0103679P.
98US-0103679P.
98US-0105269P.
98US-0105269P.
98US-0105693P.
98US-0105693P.
98US-0106033P.
98US-010639AP.
98US-010639AP.
98US-010639AP.
98US-010689AP.
98US-010693AP.
98US-010693AP.
98US-010693AP.
98US-010886P.
98US-010886P.
98US-010886P.
98US-0108848P.
98US-010885P.
98US-0108848P.
98US-0108859P.
98US-0108848P.
98US-0108859P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0101738P.
98US-0101741P.
98US-0101743P.
98US-01019143P.
98US-0101916P.
98US-0102207P.
98US-0102207P.
```

. .

, c

```
RESULT 130
ACD68208/c
ID ACD682
XX
AC ACD682
XX
AC ACD682
XX
DT 17-SEP
XX
DE Novel
                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-NOV-1998
18-NOV-1998
18-NOV-1998
18-NOV-1998
18-NOV-1998
30-DEC-1998
05-JAN-1999
26-JUL-1999
26-JUL-1999
27-JUL-1999
28-JUL-1999
29-OCT-1999
15-SEP-1999
15-JAN-2000
16-FEB-2000
16-FEB-2000
17-MAY-2000
17-MAY-2000
24-FEB-2000
17-MAY-2000
17-MAY-2000
18-NOV-2000
24-AUG-2000
24-AUG-2000
19-SEP-2001
21-JUN-2001
                                                                                                                                                                                                                                                                             Novel secreted and transmembrane polypeptides and polynucleotides encoding them useful for treating various cardiac insufficiency disorders, bone and/or cartilage disorders such as sports injuries arthritis.
                                                                                                                                                                                                                                                                                                                                                                          Baker KP, Botstein D, Desnoyers
Gao W, Goddard A, Godowski PJ,
Pan J, Paconi NF, Roy MA, Smith
Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                               (GETH
     Novel human
                                17-SEP-2003
                                                            ACD68208;
                                                                                    ACD68208
                                                                                                                                                      2003-492259/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                               _
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENENTECH
                                                                                      standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0108852P.
98US-0118858P.
98US-0113296P.
98US-0113296P.
98US-01141030P.
99WC-US000106.
99WC-US0201111.
99WC-US021114.
99WC-US021114.
99WC-US021114.
99WC-US021114.
99WC-US021114.
99WC-US02119.
199WC-US02119.
                                                                                                                                                                                                            1.8%;
ilarity 85.0%;
Conservative
       secreted
                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 INC.
     and transmembrane protein related
                                                                                      ₽P
                                                                                                                                                                                                            0;
                                                                                                                                                                                                            Score 15.2; DB 1;
Pred. No. 2.1e+02;
0; Mismatches 3;
                                                                                                                                                                                  640
                                                                                                                                                                                                                                                                                                                                                                                         L, Eaton DL, Ferrara N, Fong S; Grimaldi JC, Gurney AL, Hillan KJ; V, Stewart TA, Tumas D, Watanabe
                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                               Indels
     primer
                                                                                                                                                                                                                                          20;
                                                                                                                                                                                                               0,
        #137.
                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                             CK;
                                                                                                                                                                                                               0
01-SEP-1998
01-SEP-1998
01-SEP-1998
02-SEP-1998
02-SEP-1998
02-SEP-1998
09-SEP-1998
09-SEP-1998
10-SEP-1998
110-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human;
tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2003073129-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               secreted
typing; c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00946374
        98US-0098716P
98US-009873P
98US-009875P
98US-009875P
98US-009883P
98US-00998843P
98US-0099842P
98US-0099842P
98US-0099642P
98US-0099763P
98US-0099763P
98US-0099763P
98US-0099763P
98US-0099815P
98US-0099815P
98US-0009815P
98US-0009815P
98US-0009815P
98US-0009816P
98US-0009816P
98US-0009816P
98US-0009816P
98US-0100667P
98US-010071P
98US-010071P
98US-0101071P
98US-0101717P
98US-0101747P
98US-0101747P
98US-0101747P
98US-0101747P
98US-0101747P
98US-0101738P
98US-0101739P
98US-0101739P
98US-01017330P
98US-0102331P
98US-0102331P
98US-0102331P
98US-0102331P
98US-0102331P
98US-0102331P
98US-0102331P
98US-0102331P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d and transmembrane protein; PRO; gene therapy; vaccine; chromosome identification; vaccine; PCR; primer; ss.
```

Ş 밁

01-OCT-1998 01-OCT-1998 02-OCT-1998 06-OCT-1998 06-OCT-1998 07-OCT-1998 07-OCT-1998 07-OCT-1998 07-OCT-1998

```
RESULT 131
ADB98232
ID ADB982
XX ADB982
XX ADB982
XX O4-DEC
XX Sequen
XX Osteop
XW bone m
XX Homo s
                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-OCT-1999
30-NOV-1999
02-DEC-1999
16-DEC-1999
16-DEC-1999
16-DEC-1999
16-DEC-1999
16-DEC-1999
17-MAY-2000
11-FEB-2000
12-MAR-2000
17-MAY-2000
18-FEB-2001
19-MAR-2001
10-MAR-2001
10-MAR-2001
10-MAR-2001
10-MAR-2001
10-MAR-2001
 WO200292000-A2
                          Homo sapiens.
                                                  Osteopathic; Gene therapy; High Bone Mass; HBM; LRP5; Zmax1; LRP6; bone mass modulation; osteoporosis; STS; sequence tagged site; ds.
                                                                                         Sequence tagged site #113 used to prepare Zmax1 (LRP5) gene region map
                                                                                                                   04-DEC-2003
                                                                                                                                                                       ADB98232
                                                                                                                                                                                                                                                                                                                                         The invention describes an isolated PRO (secreted and transmembrane) polypeptide (I), having at least 80\$ sequence identity to a sequence selected from any one of the 123 amino acid sequences given in
                                                                                                                                                                                                                                                                                                                                                                                                                      Novel isolated PRO polypeptides e.g. PRO1491 and PRO1571, useful in preparation of a medicament for treating a condition responsive to Polypeptide, and as therapeutic agents e.g. vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baker KP, Botstein D, Desnoyers L, Eaton DL, Ferrara N, Fong S; Gao W, Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Pan J, Paoni NF, Roy MA, Smith V, Stewart TA, Tumas D, Watanabe CK; Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                              Example 143; Page 288; 561pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-585292/55.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                          621 TCAACCAGCGCTCAGTCCCG 640
                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                        1 Similarity
17; Conserv
                                                                                                                                                                      standard; DNA; 20
                                                                                                                                                                                                                                       TAAACAAGCGCTCAGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US006884
2000WO-US014042
2000WO-US014941
2000WO-US015264
2000WO-US023522
2000WO-US023522
2000WO-US033322
2000WO-US030873
2000WO-US030873
2000WO-US030873
2001WO-US06666
2001WO-US017800
2001WO-US017800
2001WO-US017800
2001WO-US017800
2001WO-US017800
2001WO-US017800
2001WO-US017800
2001WO-US017800
                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WS-00403297
99WO-US028313
99WO-US02851
99WO-US030095
2000WO-US000376
2000WO-US000376
2000WO-US003365
2000WO-US0034342
2000WO-US005044
                                                                                                                   (first
                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                     1.8%;
                                                                                                                                                                       ₽P
                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                      Score 15.2;
Pred. No. 2.
                                                                                                                                                                                                                                       ب
                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                      ; DB 1;
2.1e+02;
                                                                                                                                                                                                                                                                                                                 Length 20;
                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                            sequence
in
                                                                                                                                                                                                                                                                                        ٥,
                                                                                                                                                                                                                                                                                        Gaps
```

0

98US-0112684P.
98US-0112687P.
98US-0112358P.
98US-0113315P.
98US-0103315P.
98US-0103315P.
98US-0103315P.
98US-0103325P.
98US-0103325P.
98US-0103325P.
98US-0103325P.
98US-01033679P.
98US-0103679P.
98US-0105104P.
98US-0105104P.
98US-0105693P.
98US-0105693P.
98US-0106032P.
98US-0106934P.
98US-0106934P.
98US-0106934P.
98US-010885P.
98US-010885

30-OCT-1998; 03-NOV-1998; 03-NOV-1998; 03-NOV-1998; 03-NOV-1998;

10-NOV-1998; 17-NOV-1998; 17-NOV-1998;

03-NOV-1998

17-NOV-1998 17-NOV-1998

17-NOV-1998 17-NOV-1998 17-NOV-1998 17-NOV-1998

18-NOV-1998 18-NOV-1998

18-NOV-1998 18-NOV-1998 18-NOV-1998 18-NOV-1998 18-NOV-1998 22-DEC-1998 22-DEC-1998 30-DEC-1998 30-DEC-1999 12-APR-1999 12-APR-1999 23-JUN-1999 23-JUN-1999 20-JUL-1999 21-SEP-1999

13-MAY-2002; 2002WO-US014877

21-NOV-2002

WPI; 2003-523102/49

17.72

The state of the s

```
The present invention relates to High Bone Mass (HBM), LRP5 (Zmax1) and LRP6 mutants, which results in a HBM-like phenotype when expressed in a cell. The HBM-like phenotype results in bone mass modulation and/or lipid level modulation. The invention is useful for diagnosing a HBM-like modulation. The invention is useful for diagnosing a HBM-like whenevers in a subject and for preparing a composition for modulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-MAY-2001; 2001US-0290071P.
17-MAY-2001; 2001US-0291311P.
01-FEB-2002; 2002US-0353058P.
04-MAR-2002; 2002US-0361293P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     phenotype in a subject and for preparing a composition for modulat bone mass and/or lipid levels in a subject suffering from e.g. osteoporosis. The present sequence is a Sequence Tagged Site (STS) marker, which was used to prepare a physical map of the Zmaxl (LRP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New nucleic acid comprising a mutation in LRP5 or LRP6, useful for diagnosing a HBM-like phenotype in a subject and for preparing a composition for modulating bone mass and/or lipid levels in a subject
                                                              19-OCT-2001;
07-JUN-2002;
                                                                                                                                                                                                                weed controller metabolism; weed; herbicide; herbicide-resistant plant;
agrochemical; ss; PCR; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 2; Page 61; 629pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            suffering from e.g. osteoporosis.
                                                                                                      17-OCT-2002; 2002WO-JP010789
                                                                                                                                                          WC2003040370-A1
                                                                                                                                                                                                              agrochemical;
                                                                                                                                                                                                                                                       Weed controller
                                                                                                                                                                                                                                                                                  18-DEC-2003
                                                                                                                                                                                                                                                                                                                                       ADC36179 standard;
                                    (SUMO ) SUMITOMO CHEM CO LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2003-129214/12.
                                                                                                                                                                                                                                                                                                                                                                                                                               617 CATCTCAACCAGCGCTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                            l Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENOME THERAPEUTICS CORP. WYETH.
                                                                                                                                                                                                                                                                                                                                                                                                         CATCCCAACCATCACTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Anisowicz A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.8%;
llarity 85.0%;
Conservative
                                                              2001JP-00321307
2002JP-00167239
                                                                                                                                                                                                                                                                                (first entry)
           Mukumoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                       metabolism associated PCR primer SEQ ID NO:46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ۶,
                                                                                                                                                                                                                                                                                                                                       DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9 C; 1 G; 4 T;
        'n
                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Graham JR,
          Takaishi
                                                                                                                                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 15.2;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                  636
                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Morales A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1; Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Yaworsky PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Liu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (LRP5) gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 133
ADC18316/c
멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches .17
                                                                                                                                01-SEP 1998
01-SEP 1998
01-SEP 1998
01-SEP 1998
02-SEP 1998
02-SEP 1998
09-SEP 1998
                                    10-SEP-1998;
10-SEP-1998;
15-SEP-1998;
15-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                              03-APR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                        US2003064925-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human
                                                                                                         10-SEP
                                                                                                                     10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                   10-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRO PCR primer #134.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Н
98US-0100627P
98US-0100661P
```

밁 Ś

Н

Query Match Best Local S Matches 17

```
SXCCCCCCXXXXFFFXX
                                                                                                                                                                                        The invention relates to a novel DNA encoding a weed controller metabolism protein. A protein of the invention has herbicide activity. The proteins and their encoded genes are useful e.g. in constructing new breeds of herbicide-resistant plants and also in developing various agrochemicals. The present sequence is used in the exemplification of the
                                                                                                                                                                                                                                                                                                                                Weed controller metabolism proteins deactivating porphyrinogen (PPO)-inhibiting herbicides by N-demethylation and their genes, e.g. in constructing new breeds of herbicide-resistant plants.
                                                                                                                                                                                                                                                                                                 Disclosure; SEQ ID NO 46; 812pp; Japanese.
                                 396 ACACACACCCTGCTCCAGCA 415
                                                               1.8%;
il Similarity 85.0%;
.17; Conservative
ACTTACACCCTGCTCCAACA 20
                                                                                                                                      BP; 6 A; 9 C; 1 G; 4 T; 0 U; 0 Other;
                                                                     0;
                                                                                       Score 15.2;
Pred. No. 2
                                                                      Mismatches
                                                                                       2.1e+02
                                                                                                        DB 1;
                                                                                                      Length
                                                                     Indels
                                                                                                        20;
                                                                     0
                                                                                                                                                                                                                                                                                                                                                       oxidase, useful
                                                                      Gaps
                                                                      0
```

(GENO-)

Ķ

ADC18316 standard; DNA; (first entry) 20

PCR; ss; protein electrophoresis; g; genetic disorder; primer. chromosome mapping;

2001US-00013907

98US-0098716P. 98US-0098723P. 98US-0098749P. 98US-0099815P. 98US-0099816P. 98US-0099808P 98US-0099754P 98US-0099598P 98US-0099602P 98US-0099536P 98US-0098803P. 98US-0098821P. 98US-0099812P

ARESULT 132
ADC36179
ID ADC361
XX ADC361
AC ADC361
XX Used C
XX weed C
XX weed C
XX weed C
XX Weed C
XX WO2003
XX Synthe
XX Synthe
XX 17-0C1

Synthetic

```
16-SEP 1998
17-SEP 1998
17-SEP 1998
17-SEP 1998
17-SEP 1998
18-SEP 1998
18-SEP 1998
18-SEP 1998
18-SEP 1998
18-SEP 1998
23-SEP 1998
23-SEP
98US-0110662P

98US-0110664P

98US-01100684P

98US-01100711P

98US-0110071P

98US-01100919P

98US-01101068P

98US-01110168P

98US-01111471P

98US-0111471P

98US-0111475P

98US-0111475P

98US-0111475P

98US-0111474P

98US-0111474P

98US-0111474P

98US-0111474P

98US-0111474P

98US-0111474P

98US-0111474P

98US-0111474P

98US-01112307P

98US-01102307P

98US-01102307P

98US-01102330P

98US-01102330P

98US-01102331P

98US-01102484P

98US-01103415P

98US-01103415P

98US-01103497P

98US-01103497P

98US-01103401P

98US-01103401P

98US-01105694P

98US-01105104P

98US-0110603P

98US-0110603P

98US-01106248P

98US-0110634P

98US-0110634P
```

```
\frac{1}{1} \frac\
                                                                                                                                                                                                                                                                                                                                                                                                                  03-NOV-1998
03-NOV-1998
03-NOV-1998
03-NOV-1998
03-NOV-1998
17-NOV-1998
18-NOV-1998
18-NOV-1998
18-NOV-1998
18-NOV-1998
17-NOV-1998
17-NOV-1998
17-NOV-1998
17-NOV-1998
17-NOV-1999
17-NOV-1999
18-NOV-1999
18-NOV-1999
18-NOV-1999
116-DEC-1999
116-DEC-1
                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0106856P

98US-0106905P

98US-0106905P

98US-0106934P

98US-0106934P

98US-0106934P

98US-0108775P

98US-0108775P

98US-0108787P

98US-0108807P

98US-0108807P

98US-0108867P

98US-0108867P

98US-0108867P

98US-0108865P

98US-0108851P

98US-0108852P

98US-0108852P

98US-0114223P

98US-0114233P

99US-01410379

98US-01142506P

98US-01142506P

98US-01142506P

98US-01142506P

98US-0114133P

99US-0141037P

99US-0141037P

99US-0141037P

99US-014050504

2000WO-US003156

2000WO-US003556

2000WO-US006841

2000WO-US013785

2000WO-US013785

2000WO-US013785

2000WO-US013785

2000WO-US013785

2000WO-US013563

2000WO-US013674

2000WO-US0
```

_ GENENTECH INC

Baker KP, Gao W, G Pan J, P Williams 쯗 KP, Botstein Goddard A, Paoni NF, R ms PM, Wood W in D, Desnoyers , Godowski PJ, Roy MA, Smith d WI; s L, Eaton DL, Grimaldi JC, n V, Stewart TA TΑ, , Ferrara N, Gurney AL, TA, Tumas D, , Fong S; Hillan KJ; , Watanabe C CK;

2003-555602/52.

Novel isolated PRO polypeptides preparation of a medicament for polypeptide, and as therapeutic e.g. PRO1491 and PRO1571, useful treating a condition responsive agents e.g. vaccines. co in n the PRO

. 15.2.C

party of the state of the state

```
RESULT 134
ADD70962/c
ID ADD70962;
XX
AC ADD70962;
XX
AC ADD70962;
XX

DT 15-JAN-2004 (first
XX
Human PRO 1410 Taqma
XX
Human; PCR; primer;
XW immune response; car
XW umbilical vein endot
XX
Human PRO 1410 Taqma
XX
Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human PRO 1410 Taqma
XX

Human 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to human PRO polypeptides and the polynucleotides encoding them. The sequences are useful in the preparation of a medicament for treating a condition responsive to a PRO polypeptide. The polypeptides are useful in a number of functional biological assays, as molecular weight markers for protein electrophoresis and as therapeutic agents. The polynucleotides are useful as hybridisation probes for a cDNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumour; immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       621 TCAACCAGCGCTCAGTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20 TANACANGCGCTCAGTCCTG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ch 1.8%; Score 15.2; DB 1; Length 1 Similarity 85.0%; Pred. No. 2.1e+02; 17; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    143; SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1410 Taqman PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00015386
98US-0098716P

98US-0098729P

98US-0098739P

98US-0098831P

98US-00998343P

98US-00998343P

98US-0099602P

98US-0099602P

98US-0099741P

98US-0099754P

98US-0099754P

98US-0099754P

98US-0099754P

98US-0099763P

98US-0099763P

98US-0109815P

98US-0100386P

98US-0100661P

98US-0110662P

98US-0110663P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  447; 555pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      世.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
117-SEP 1998
118-SEP 1998
118-SEP 1998
118-SEP 1998
118-SEP 1998
123-SEP 1998
23-SEP 1998
24-SEP 1998
25-SEP 1998
27-SEP 1998
29-SEP 1998
29-SEP 1998
20-SEP 1998

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0101014P

98US-010106P

98US-010147P

98US-010147P

98US-0101475P

98US-0101476P

98US-0101476P

98US-0101479P

98US-0101738P

98US-0101743P

98US-0101743P

98US-0101743P

98US-0101290P

98US-01012916P

98US-0102240P

98US-0102240P

98US-0102330P

98US-0102331P

98US-0102570P

98US-0102570P

98US-0102584P

98US-0102584P

98US-0102584P

98US-0103258P

98US-0103315P

98US-0103315P

98US-0103315P
98US-0105882P

98US-0106062P

98US-0106032P

98US-0106032P

98US-0106032P

98US-0106032P

98US-0106032P

98US-0106032P

98US-01060348P

98US-0106248P

98US-0106248P

98US-0106304P

98US-01063084P

98US-01063084P

98US-0106905P
                                                                                                                                                                                                                                                                                               98US-0105104P.
98US-0105266P.
98US-0105263P.
98US-0105693P.
98US-0105807P.
                                                                                                                                                                                                                                                                                                                                                                                                            98US-0103679P.
98US-0103711P.
98US-0104257P.
98US-0104987P.
98US-0105000P.
98US-0105002P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0103395P.
98US-0103396P.
98US-0103401P.
98US-0103633P.
98US-0103678P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0100930P
98US-0100848P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0100848P
98US-0100849P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0100919P
```

1ge 127

```
17.NOV-1998
17.NOV-1998
17.NOV-1998
18.NOV-1998
18.NOV-1998
18.NOV-1998
18.NOV-1998
18.NOV-1998
18.NOV-1998
19.NOV-1999
20.UTL-1999
20.UTL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-NOV-1998;
03-NOV-1998;
03-NOV-1998;
10-NOV-1998;
17-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
                                                                                                                                                                                                                          _
                                                                                                                                                                                                                          GENENTECH INC.
                                                                                                                                                                                                                                                       98US-0106914P

98US-0106934P

98US-0106934P

98US-01087783P

98US-0108787P

98US-0108808P

98US-0108808P

98US-0108808P

98US-0108808P

98US-0108808P

98US-0108868P

98US-0108858P

98US-0108858P

98US-0108858P

98US-0108858P

98US-0108858P

98US-0108858P

98US-0108858P

99US-0108858P

99US-
                                                                                                                                                            , Fong S;
Hillan KJ;
Watanabe (
```

Gao W, G Pan J, E Williams Novel isolated PRO polypeptides e.g., PRO1130, PRO1275, PRO1418, PRO1555, PRO1787 affect glucose or free fatty acid (FFA) uptake by skeletal muscle cells and are useful for treating diabetes or hyper- or hypo-insulinemia. WPI; 2003-874602/81. KP, Botstein D, Desno , Goddard A, Godowski , Paoni NF, Roy MA, S ams PM, Wood WI; Desnoyers L, Eaton DL, Ferrara N, owski PJ, Grimaldi JC, Gurney AL, MA, Smith V, Stewart TA, Tumas D, CK;

Example 143; SEQ ID NO 447; 553pp; English

Gao W, Goddard A, Pan J, Paoni NF, Williams PM, Wood

Roy MA,

Smith

Godowski

L, Eaton DL, Ferrara N, Grimaldi JC, Gurney AL, V, Stewart TA, Tumas D,

Fong S Hillan

S

Hillan KJ; Watanabe (

GK,

Ţ,

Botstein D,

Desnoyers L,

```
RESULT 135
ADD40039/G
ID ADD400
XX
ADD40039/G
AC ADD400
XX
AC ADD400
XX
XX
WINDELL
XX
WINDELL
XX
WINDELL
XX
WINDELL
XX
WINDELL
XX
US2003
XX
US2003
XX
US2003
XX
US2003
XX
O1-MAY
PR 01-SEP
PR 01-SEP
PR 115-SEP
PR 01-SEP
PR 11-PEB
PR 02-DEC
VX
PR 02-DEC
VX
PR 03-UNA
VX
PR 01-MA
VX
PR 01-MA
VX
PR 03-UNA
VX
PR 01-MA
VX
PR 01-MA
VX
PR 03-UNA
VX
PR 01-MA
VX
PR 03-UNA
VX
PR 01-MA
VX
PR 03-UNA
VX
PR 03-UNA
VX
PR 01-MA
VX
PR 03-UNA
VX
PR 03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 17
                                                                                                                                                                05-JAN-1999
01-SEP-1999
30-NOV-1999
30-NOV-1999
06-JAN-2000
06-JAN-2000
11-FEB-2000
11-FEB-2000
11-FEB-2000
02-MAR-2000
02-MAR-2000
02-MAY-2000
02-MAY-2000
02-MAY-2000
02-JAN-2000
02-JAN-2000
02-JAN-2000
02-JAN-2000
02-JAN-2000
02-JAN-2000
01-MAY-2000
01-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumous immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003083462-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADD40039;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADD40039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       621 TCAACCAGCGCTCAGTCCCG 640
                                                                                                                      _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17; Conservative
                                                                                                                      GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAAACAAGCGCTCAGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1410 Taqman
                                                                                                                                                                     99WO-US000106
99WO-US021111
99WO-US021113
99WO-US021151
99WO-US021551
2000WO-US0300576
2000WO-US003442
2000WO-US005841
2000WO-US0058441
2000WO-US0058441
2000WO-US0058441
2000WO-US014042
2000WO-US014042
2000WO-US014042
2000WO-US014042
2000WO-US015264
2000WO-US015264
2000WO-US015264
2000WO-US015264
2000WO-US015264
2000WO-US015264
2000WO-US015264
2000WO-US015264
2000WO-US015264
2001WO-US015264
2001WO-US015264
2001WO-US015264
2001WO-US015264
2001WO-US015264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00013913
                                                                                                                        INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            85.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. 2.10
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 15.2;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #Ľ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .1e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRO; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
```

The invention relates to an intransmembrane protein) having

n isolated PR ing at least |

PRO polypeptide (secreted st 80% amino acid sequence

or

1.8%;

DB μ,

Length 20; acid sequence

egg-

```
RESULT 136
ADD70485/c
ID ADD704
XX
ADD704
XX
ADD704
XX
DT 15-JAN
XX
DE Human;
KW immune
KW immun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequences as CC given in the specification (including their extracellular domains either cor without their associated signal peptides. Also include are the nucleotide (NA) sequences encoding PRO, a vector comprising the PRO NA, a CC comprising PRO fused to a heterologous amino acid sequence, and an anticell comprising the vector, producing PRO, a chimaeric molecule comprising PRO fused to a heterologous amino acid sequence, and an anticell comprising PRO fused to a heterologous amino acid sequence, and an anticell comprising professis and also for chromosome identification. PRO is also useful for tissue typing. PRO and PRO NA are useful as hybridisation compressis and also for chromosome identification. PRO is also useful in development and screening useful reagents. PRO NA is also cuseful in gene therapy. PRO1244, PRO1264 and PRO1303 polypeptides are useful for suppressing immune response. PRO1246 cuseful for treating cancerous tumours. PRO1303, polypeptides are useful for suppressing immune response. PRO1246 complypeptide is also useful for streating tumours. PRO1246 and PRO1364 polypeptide is also useful for streating tumours. PRO1246 and PRO1364 polypeptide are useful for treating cardiac insufficiency disorders. CC PRO1246 polypeptides are useful for treating bone and/or cartilage disorders (e.g., arthritis) and wound healing. PRO1303, PRO1304 PRO1476 and PRO1479, PRO1265, PRO1244 and PRO1382 polypeptides are useful for treating disabetes in skeletal muscle cells and observe, PRO1255, PRO1244 and PRO1382 polypeptides are useful for treating disabetes in skeletal muscle cells and observe, PRO1255, PRO1244 and PRO1308, PRO1306, PRO1416, PRO1410, PRO1410, PRO1306, PRO1410, PRO14106, PRO14106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                             Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumour; immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New secreted and transmembrane PRO polypeptides useful for treating cancers, kidney disorders, Crohn's disease, diabetes mellitus, hyper- or hypo-insulinemia, sports injuries and arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 143; SEQ ID NO 447; 557pp; English.
                                                                                          dermatitis; herpetiformis;
                                                                                                                                                                                                                                    Human PRO 1410 Taqman PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                            ADD70485 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20
                 US2003054406-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    621 TCAACCAGCGCTCAGTCCCG 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tumour cell lines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAAACAAGCGCTCAGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP; 4 A; 4 C; 6
                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.8%;
85.0%;
                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                            ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 2.10
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ១
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 15.2;
Pred. No. 2
                                                                                              Schonlein-Henoch purpura; corohn's disease; thalassaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ഗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1; Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
  15-SEP-1998
16-SEP-1998
16-SEP-1998
16-SEP-1998
16-SEP-1998
16-SEP-1998
17-SEP-1998
18-SEP-1998
18-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
33-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-SEP-1998;
09-SEP-1998;
09-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-SEP-1998
01-SEP-1998
01-SEP-1998
01-SEP-1998
02-SEP-1998
02-SEP-1998
02-SEP-1998
09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001US-00006818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0099741P.
98US-0099754P.
98US-0099763P.
98US-0099792P.
98US-0099808P.
98US-0099812P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0098750P.
98US-0098803P.
98US-0098821P.
98US-0098843P.
98US-0101479P
98US-0101743P
98US-0101743P
98US-0101915P
98US-01012207P
98US-0102307P
98US-0102307P
98US-0102331P
98US-0102331P
98US-0102331P
98US-0102487P
98US-0102570P
98US-0102570P
98US-0102584P
98US-0102584P
98US-0102584P
98US-0102584P
98US-0103315P
98US-0103315P
98US-0103315P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0100661P.
98US-0100662P.
98US-0100664P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0100388P.
98US-0100390P.
98US-0100584P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0101471P.
98US-0101472P.
98US-0101474P.
98US-0101475P.
98US-0101476P.
98US-0101477P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0101068P.
98US-0101071P.
98US-0101279P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0100711P.
98US-0100919P.
98US-0100930P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0099816P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0099642P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0099598P
98US-0099602P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0099596P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0098716P
98US-0098723P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0099815P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0099536P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0098749P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0100849P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0100710P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0100683P
98US-0100684P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0100627P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0101014P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0100848P
```

```
17-NOV-1998
17-NOV-1998
17-NOV-1998
17-NOV-1998
17-NOV-1998
17-NOV-1998
17-NOV-1998
17-NOV-1998
18-NOV-1998
18-NOV-1999
16-APR-1999
26-JUL-1999
26-JUL-1999
26-JUL-1999
26-JUL-1999
26-JUL-1999
26-JUL-1999
16-APR-1999
16-APR-1999
16-APR-1999
16-APR-1999
16-APR-1999
16-APR-1999
16-APR-1999
16-APR-1999
16-APR-1999
17-KEP-1999
16-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-CCT-1998
07-CCT-1998
08-CCT-1998
08-CCT-1998
08-CCT-1998
20-CCT-1998
20-CCT-1998
20-CCT-1998
20-CCT-1998
22-CCT-1998
22-CCT-1998
22-CCT-1998
22-CCT-1998
23-CCT-1998
27-CCT-1998
27-CCT-1998
27-CCT-1998
28-CCT-1998
29-CCT-1998
29-CCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-NOV-1998
17-NOV-1998
98US-0103395P

98US-0103391P

98US-0103391P

98US-0103391P

98US-0103633P

98US-0103679P

98US-0104897P

98US-0104897P

98US-0104897P

98US-0105000P

98US-0105000P

98US-0105000P

98US-01050593P

98US-01050593P

98US-01050593P

98US-01050593P

98US-0105032P

98US-0105032P

98US-0105032P

98US-0106032P

98US-0108850P

98US-0108851P

99US-0144758P

99US-0144759P

99US-0145003034P
  RESULT 137
ADD38606;
ID ADD38606;
XX ADD38606;
XX ADD38606;
XX IDJ38606;
XX IDJ38606;
XX IDJ38606;
XX INTAN-20
XX US2003096;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 17
        01-SEP-1998;
01-SEP-1998;
01-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-MAR-2000
17-MAY-2000
22-MAY-2000
30-MAY-2000
02-JUN-2000
23-AUG-2000
24-AUG-2000
24-AUG-2000
01-DEC-2000
01-DEC-2000
01-DEC-2000
01-DEC-2001
01-MAR-2001
01-JUN-2001
20-JUN-2001
20-JUN-2001
20-JUN-2001
20-JUN-2001
01-SEP-2001
01-SEP-2001
                                                                                                                                                                                                                                                                                                                          Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumou immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Baker KP,
Gao W, G
Pan J, P
Williams
                                                                                                               07-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel isolated PRO polypeptide useful for tissue typing, modulating biological activity of cell, as molecular weight markers in protein electrophoresis, for treating arthritis, tumor.
                                                                                                                                                                                                                           US2003096955-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADD38606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to an isolated PRO polypeptide transmembrane protein) having at least 80% amino acid
                                                                                                                                                                     22-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2003-708344/67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRO 1410 Taqman PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Goddard
Paoni NF
ms PM, Wc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    143; SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAACCAGCGCTCAGTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TARACRAGEGETERGTEETG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.8%;
nilarity 85.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Botstein D, Desnoyers L, Eaton DL, Ferrara N, Idard A, Godowski PJ, Grimaldi JC, Gurney AL, oni NF, Roy MA, Smith V, Stewart TA, Tumas D, 4, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US006884
2000WO-US014041
2000WO-US014941
2000WO-US015264
2000WO-US023526
2000WO-US023528
2000WO-US023528
2000WO-US036666
2001WO-US036666
2001WO-US06666
2001WO-US016666
2001WO-US016666
2001WO-US016666
2001WO-US016666
                                                                                                                  2001US-00012755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
        98US-0098716P.
98US-0098723P.
98US-0098749P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              447; 549pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 15.2; D
Pred. No. 2.1e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.1e+02;
3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BG
```

<u>--</u>

Length Indels

0

Gaps

0;

PRO; tumour;

(secreted 20;

or identity

, Fong S; Hillan KJ; , Watanabe CK;

\(\text{\text{R}}\) \(\tex

;					
4					
•.					
•					
. אַק אָק אָק אָק אָק אָק אָק אָק אָק אָק אָ	אי א	אל א	אָרֶקי אָרֶקי אָרָקי אָרֶקי אָרָקי	יס קי	אל א
0220221101	04400H00H00N	0 + 0 0 0 0 P P P P P P P P P P P P P P	++++++++++00000		
8432027524 8432027524 843202888	4-81-6-6-0-0-5-6-0-1-8-1-8-1-8-1-8-1-8-1-8-1-8-1-8-1-8-1	3-65-0-101 3-41 3-41 3-41 3-41	03-NOV-103-NOV-103-NOV-103-NOV-117-NOV		200000000000000000000000000000000000000
VGGG97444			444444444444444444444444444444444444444		4444444444
000000000			1998 1998 1998 1998 1998 1998 1998 1998		
000000000	00000 00000000000000000000000000000000	• • • • • • • • • • • • • • • • • • •	98US-0106995p. 98US-0106919p. 98US-0106934p. 98US-0106934p. 98US-0108779p. 98US-0108779p. 98US-0108779p. 98US-0108801p. 98US-0108801p. 98US-01088077p. 98US-01088077p. 98US-01088077p.		
000000000000000000000000000000000000000	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8				- SC - C - C - C - C - C - C - C - C - C
	014 010 010 010 010 000 000 000 000 000	010 010 010 010 010 011 011 012 013			0000000000
0.58 0.68 0.68 0.68 0.68 0.68 0.68 0.68 0.6	250 250 250 250 250 283 283 283 283 283 283 283 283 283 283	888855 8885 8885 8885 8885 8885 8885 8	88800 88800 88800		000000000000000000000000000000000000000
580446641	089140 1000 1000 1000 1000 1000 1000 1000				ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה ה

01-SEP-1998;
02-SEP-1998;
02-SEP-1998;
02-SEP-1998;
09-SEP-1998;
09-SEP-1998;
10-SEP-1998;
11-SEP-1998;
12-SEP-1998;
13-SEP-1998;
14-SEP-1998;
16-SEP-1998;
17-SEP-1998;
17-SEP-1998;
18-SEP-1998;
17-SEP-1998;
18-SEP-1998;
17-SEP-1998;
17-SEP-1998;
18-SEP-1998;
17-SEP-1998;
18-SEP-1998;
17-SEP-1998;
18-SEP-1998;
19-SEP-1998;
10-SEP-1998;
10-SEP-1998;
11-SEP-1998;
11-SE

98US-0098750P
98US-009884P
98US-009864P
98US-0099598P
98US-0099598P
98US-0099598P
98US-009974P
98US-009974P
98US-009974P
98US-009975P
98US-0099763P
98US-0099763P
98US-0009815P
98US-0009815P
98US-0009815P
98US-0009815P
98US-000664P
98US-000664P
98US-000664P
98US-000664P
98US-000664P
98US-000664P
98US-000711P
98US-00064P
98US-000711P
98US-000711P
98US-00071P

```
RESULT 138
ADD39562/c
ID ADD395
XX ADD395
XX ADD395
XX Human;
XW Human;
XW Human;
XW Arthri
XW Arthri
XW Barger
XW Germat
XX Homo s
XX Homo s
XX Homo s
XX O1-SEI
PR 01-SEI
PR 01-SEI
PR 02-SEI
PR 03-SEI
PR 03-SEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-NOV-2000; 2000WO-US030873.
01-DEC-2000; 2000WO-US032678.
28-FEB-2001; 2001WO-US006520.
01-WAR-2001; 2001WO-US006666.
01-UUN-2001; 2001WO-US017800.
20-UUN-2001; 2001WO-US019692.
29-UUN-2001; 2001WO-US021066.
09-UUL-2001; 2001WO-US021735.
04-SEP-2001; 2001US-00946374.
  01-SEP-1998
01-SEP-1998
01-SEP-1998
01-SEP-1998
02-SEP-1998
02-SEP-1998
02-SEP-1998
02-SEP-1998
09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                         Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumour; immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baker KP, Botstein D, Desr
Gao W, Goddard A, Godowski
Pan J, Paoni NF, Roy MA,
Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity to an amino acid sequence chosen from 123 fully defined sequences as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel isolated PRO polypeptide, useful cardiac insufficiency disorders, wound thalassemias.
                                                                                                                                                                                                                        07-DEC-2001;
                                                                                                                                                                                                                                                            22-MAY-2003
                                                                                                                                                                                                                                                                                                    US2003096954-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADD39562 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-787000/74.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 143; SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GETH
                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRO 1410 Taqman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAACCAGCGCTCAGTCCCG 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAAACAAGCGCTCAGTCCTG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ilarity 85.
Conservative
                                                                                                                                                                                                                        2001US-00011671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
  98US-0098716P
98US-0098723P
98US-0098749P
98US-0098750P
98US-0098803P
98US-0098821P
98US-0098831P
98US-00988343P
98US-0099536P
98US-0099536P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         D, Desnoyers L, Eaton DL, Ferrara N,
Godowski PJ, Grimaldi JC, Gurney AL,
Roy MA, Smith V, Stewart TA, Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.8%;
85.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             447;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         쁌
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             556pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 15.2; DI
Pred. No. 2.1e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for treating cancerous tumors, healing, diabetes mellitus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۳.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , Fong S;
Hillan KJ;
, Watanabe CK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
    16-SEP-1998
17-SEP-1998
17-SEP-1998
17-SEP-1998
17-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
23-SEP-1998
24-SEP-1998
29-SEP-1998
29-SEP-1998
30-SEP-1998
30-SEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10 - SEP 11998
10 - SEP 11998
10 - SEP 11998
110 - SEP 11998
115 - SEP 11998
116 - SEP 11998
117 - SEP 11998
117 - SEP 11998
117 - SEP 11998
118 - SEP 11998
119 - SEP 11998
119 - SEP 11998
110 - SEP 11998
1
  98US-0103449

98US-0103314P

98US-0103318P

98US-0103328P

98US-0103395P

98US-01033401P

98US-0103401P

98US-0103679P

98US-0103679P

98US-0103711P

98US-0103711P

98US-0103679P

98US-0103679P

98US-0103679P

98US-0105169P

98US-0105102P

98US-0105102P

98US-0105102P

98US-0105102P
                                                                                                                                                                                                                                                                                                                                                          98US-0099763P

98US-0099808P

98US-0099812P

98US-0099815P

98US-0099815P

98US-00099815P

98US-0100385P

98US-0100661P

98US-0100662P

98US-0100662P

98US-0100711P

98US-0100711P

98US-0100711P

98US-0100711P

98US-0100711P

98US-0101044P

98US-01011771P

98US-0101271P

98US-0102307P

98US-0102307P

98US-0102571P

98US-0102571P

98US-0102571P

98US-0102571P

98US-0102571P

98US-0102571P

98US-0102571P

98US-0102571P

98US-0102571P

98US-0102571P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0099602P.
98US-0099642P.
98US-0099741P.
98US-0099754P.
```

#-- 1, :\$

THE STATE OF THE S

```
ADD39085;
XX ATTHITIS;
XX ADD39085;
XX ATTHITIS;
XX ATTHITIS;
XX ADD39085;
XX ADD39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCXXX PTT TXXX PTTXXX PTXXX P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 17
01-SEP 1998
01-SEP 1998
01-SEP 1998
01-SEP 1998
02-SEP 1998
02-SEP 1998
09-SEP 1998
09-SEP 1998
09-SEP 1998
10-SEP 1998
110-SEP 1998
110-SEP 1998
110-SEP 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JUN-2001;
09-JUL-2001;
04-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumou immune response; cardiac insufficiency disorder; cartilcium flux; umbilical vein endothelial cell; bone disorder; cartilcie disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlain-Henoch purpura; coeliac disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel isolated PRO polypeptide useful for biological activity of cell, as molecular electrophoresis, for treating arthritis, t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Baker KP, Botstein D,
Gao W, Goddard A, God
Pan J, Paoni NF, Roy
Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 143; SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2003092061-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2003-786999/74.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRO 1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    l Similarity 85.0
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAAACAAGCGCTCAGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAACCAGCGCTCAGTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  herpetiformis; Crohn's disease; thalassaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US021066.
2001WO-US021735.
2001US-00946374.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-00007194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        relates t
protein)
   98US-0098716P.
98US-0098749P.
98US-0098750P.
98US-0098821P.
98US-0098843P.
98US-0099843P.
98US-0099536P.
98US-0099602P.
98US-0099741P.
98US-0099754P.
98US-0099754P.
98US-0099782P.
98US-0099782P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Taqman PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D, Desnoyers
Godowski PJ,
Roy MA, Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NO 447; 550pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to an isolated PRO polypeptide ) having at least 80% amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15.2; DB 1;
Pred. No. 2.1e+02;
0; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           s L, Eaton DL, F
Grimaldi JC, Gu
h V, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tissue
weight
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , Ferrara N,
Gurney AL,
TA, Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      typing,
markers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        secreted)
d sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modulating in protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fong S;
Hillan KJ;
Watanabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRO; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or
identity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ر الآل:
م الآل:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q;
```

0

26-OCT-1998
27-OCT-1998
27-OCT-1998
27-OCT-1998
28-OCT-1998
28-OCT-1998
28-OCT-1998
28-OCT-1998
28-OCT-1998
28-OCT-1998
28-OCT-1998
29-OCT-1998
29-OCT-1998
30-OCT-1998
31-NOV-1998
31-NOV-1998
31-NOV-1998
17-NOV-1998
17-NOV-1999
16-AFR-1999
16-AFR-1999
23-UIN-1999
23-UIN-2000
11-FEB-2000
11-FEB-2000
11-FEB-2000
01-DEC-2000

98US-0105693 98US-0105697 98US-0105881P 98US-0105881P 98US-0106082P 98US-0106023P 98US-0106032P 98US-0106033P 98US-0106033P 98US-0106033P 98US-0106033P 98US-0106033P 98US-0106032P 98US-0106033P 98US-0106046464 99US-0106046464 99US-0106046666666666666

```
10-SEP-1998
10-SEP-1998
10-SEP-1998
11-SEP-1998
12-SEP-1998
12-SEP-1998
13-SEP-1998
13-SEP
98US-0099812P
98US-0099816P
98US-0009816P
98US-010033PP
98US-0100662P
98US-0100662P
98US-0100662P
98US-0100663P
98US-0100683P
98US-01000848P
98US-010100848P
98US-01010147PP
98US-0101477PP
98US-0101477PP
98US-0101477PP
98US-0101279PP
98US-0101279PP
98US-0101279PP
98US-0101279PP
98US-0101279PP
98US-0101279PP
98US-0101274PP
98US-010331PP
98US-0103187PP
98US-0103187PP
98US-0103187PP
98US-01051887PP
98US-01051887PP
98US-0105887PP
      28-OCT 1998
28-CCT 1998
28-CCT 1998
28-CCT 1998
29-OCT 1998
30-OCT 1998
30-OCT 1998
30-OCT 1998
30-OCT 1998
30-OCT 1998
30-NOV 1998
17-NOV 1998
11-NOV 1999
11-SEP 1999
11-SEP 1999
11-FEB 2000
11-FEB 2000
11-FEB 2000
11-FEB 2000
11-FEB 2000
11-FEB 2000
11-NAY 2000
11-FEB 2000
11-NAY 2000
11-DEC 1999
12-JUN 2000
11-DEC 1999
11-DEC
                                             (GETH
                                               J
                                               GENENTECH
                                                                                    98US-0106029P

98US-0106033P

98US-0106033P

98US-0106033P

98US-0106038AP

98US-010624BP

98US-010638AP

98US-0106464P

98US-0106935P

98US-0106935P

98US-0106934P

98US-0106934P

98US-0106934P

98US-0106934P

98US-01089779P

98US-0108807P

98US-0108807P

98US-0108807P

98US-0108807P

98US-0108867P

98US-0108852P

98US
```

쯗

Botstein

'n

Desnoyers

ŗ

Eaton ĮĽ,

Ferrara

z

Fong

S

and the second s

```
RESULT 140

ADD40516;

ID ADD40516;

XX ADD40516;

XX ADD40516;

XX ADD40516;

XX ADD40516;

XX Human PRO
XX Human; PCI
XX US20030821
XX US200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCXXX PTXXX PTXXX CCCXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 17
01-SEP-1998
01-SEP-1998
01-SEP-1998
02-SEP-1998
02-SEP-1998
02-SEP-1998
09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumou immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gao W, G
Pan J, F
Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to an isolated PRO polypeptide (secreted transmembrane protein) having at least 80% amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated PRO polypeptide such as PRO1560, PRO444, PRO1018, I
PRO1244, PRO1246, useful for treating cancerous tumors, cardiac
insufficiency disorders, wound healing, Crohn's disease, celiac
                                                                                                                                                                                                                                                                                                                                                                      06-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                              US2003082627-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 143; SEQ ID NO 447; 555pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     621 TCAACCAGCGCTCAGTCCCG 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2003-765477/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRO 1410 Taqman PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  l Similarity 85.0
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Goddard A, Godowski
Paoni NF, Roy MA, S
s PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAAACAAGCGCTCAGTCCTG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                                                                                                                                      2001US-00006117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first
98US-0098715P
98US-009873P
98US-0098750P
98US-0098813P
98US-0098813P
98US-00998343P
98US-0099596P
98US-0099598P
98US-0099598P
98US-0099741P
98US-0099741P
98US-0099753P
98US-0099763P
98US-0099763P
98US-0099763P
98US-0099763P
98US-0099815P
98US-0100385P
98US-0100385P
98US-0100386P
98US-0100386P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 15.2; DB 1;
Pred. No. 2.1e+02;
0; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        i PJ,
Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Grimaldi JC, Gu
V, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rney AL,
Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hillan KJ;
Watanabe (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRO; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lor
identity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRO1773,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ç;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
   18-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
24-SEP-1998
24-SEP-1998
24-SEP-1998
24-SEP-1998
29-SEP-1998
29-SEP-1998
30-SEP-1998
30-CCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-SEP-1998;
17-SEP-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-SEP-1998;
17-SEP-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-SEP-1998;
16-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-SEP-1998
98US-0105002P

98US-0105169P

98US-0105266P

98US-0105694P

98US-0105807P

98US-0105881P

98US-0105882P

98US-0106022P

98US-0106022P

98US-0106032P

98US-0106033P

98US-0106033P

98US-01060348P

98US-01060348P
                                                                                                                                                                                                                                                             98US-0100627P

98US-0100662P

98US-0100664P

98US-0100684P

98US-0100710P

98US-0100710P

98US-0100919P

98US-01010930P

98US-0101071P

98US-0101071P

98US-0101071P

98US-01011472P

98US-01011472P

98US-01011474P

98US-01011474P

98US-01011474P

98US-01011474P

98US-01011474P

98US-01011474P

98US-01011474P

98US-0101274P

98US-0101274P

98US-0101274P

98US-0101274P

98US-010224P

98US-010224P

98US-010231P

98US-0102331P

98US-0103314P

98US-0103314P

98US-0103349P

98US-01033401P

98US-01033401P

98US-0103679P

98US-0103679P

98US-0103679P
```

17-NOV-1998 17-NOV-1998 17-NOV-1998 10-NOV-1998

3-NOV-1998,

-NOV-1998; -NOV-1998;

-OCT-1998; -OCT-1998; -NOV-1998;

17-NOV-1998

cardiac

0;

Gaps

0

or identity

PRO; tumour;

```
New isolated PRO polypeptides such
                                                                                                                        2000WO-US030952
2000WO-US030873
2000WO-US032678
2001WO-US006520
2001WO-US016666
2001WO-US017809
2001WO-US01780
2001WO-US021735
2001WO-US021735
2001WO-US021735
                                                                                                                                                                                                                                        98US-010850P

98US-0106464P

98US-010690SP

98US-010690SP

98US-0106913P

98US-0106913P

98US-0106913P

98US-0106913P

98US-010877SP

98US-010877SP

98US-010878SP

98US-010880SP

98US-010880SP

98US-010886SP

98US-010885SP

98US-010885SP

98US-010885SP

98US-010885SP

98US-010885SP

98US-010885SP

98US-010885SP

98US-010885SP

98US-0114223P

99US-0113296P

98US-0114223P

99US-0113296P

99US-0114223P

99US-0114223P

99US-0113296P

99US-01335SP

2000WO-US000315

2000WO-US000316

2000WO-US00134941

2000WO-US0135264

2000WO-US0135264

2000WO-US0135264
                                            Roy
                                                       n D, Desnoyers ;
Godowski PJ, (
Roy MA, Smith )
                                                      L, Eaton DL, Ferrara N, Grimaldi JC, Gurney AL, V, Stewart TA, Tumas D,
 3
  PRO1560, PRO444,
  PRO1018, PRO1773,
                                                        Fong S;
Hillan KJ;
Watanabe CK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 141
ADE50737/c
   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rexsxoo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 17
  01-SEP 1998
01-SEP 1998
01-SEP 1998
02-SEP 1998
02-SEP 1998
02-SEP 1998
09-SEP 1998
09-SEP 1998
09-SEP 1998
10-SEP 1998
10-SEP 1998
11-SEP 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumous immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \mathtt{pRO1244}, \mathtt{pRO1246}, are useful for treating cancerous tumors and insufficiency disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                      US2003069179-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADE50737;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADE50737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 143; SEQ ID NO 447;
                                                                                                                                                                                                                                                                                                                                                                          11-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRO 1410 Taqman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity 85.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAACCAGCGCTCAGTCCCG 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAAACAAGCGCTCAGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     relates t
                                                                                                                                                                                                                                                                                                                                                                          2001US-00015393
  98US-0098716P

98US-0098750P

98US-0098750P

98US-0098821P

98US-0098821P

98US-0099536P

98US-0099536P

98US-0099536P

98US-0099534P

98US-0099741P

98US-0099741P

98US-0099741P

98US-0099753P

98US-0099753P

98US-0099753P

98US-0099753P

98US-0099753P

98US-0099753P

98US-0099753P

98US-0109815P

98US-0109815P

98US-0109815P

98US-0100684P

98US-0100664P

98US-0100664P

98US-01006684P

98US-0100684P

98US-0100684P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    85.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     to an isolated having at leas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₽₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        550pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 2.16
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 15.2; DB 1
Pred. No. 2.1e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         least
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRO polypeptide
st 80% amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (secreted
```

17-NOV-1998
17-NOV-1998
17-NOV-1998
18-NOV-1998
18-NOV-1999
10-SEP-1999
10-SEP-1999
10-SEP-1999
10-SEP-1999
10-SEP-1999
10-SEP-1999
10-SEP-1999
10-SEP-1999
10-SEP-1999
10-DEC-1999
10-DEC

Baker KP, Gao W, G Pan J, P Williams

_

GENENTECH

INC.

: KP, Botstein I
v, Goddard A, G
J, Paoni NF, Rc
iams PM, Wood WI

2003-755104/71

, . .

Spiles

```
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
18-NOV-1998;
18-NOV-1999;
20-JUN-1999;
20-JUN-2000;
21-PEB-2000;
21-PEB-2000;
22-MAY-2000;
23-NUR-2000;
24-PEB-2000;
21-PEB-2000;
21-JUN-2001;
20-JUN-2001;
21-JUN-2001;
20-JUN-2001;
20-JU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-NOV-1998;
10-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                 (GETH
                                                                                                                                                                                                                                                                                                                                                                                                             98US-0106934P

98US-0108778p

98US-0108778p

98US-0108787p

98US-0108802p

98US-0108802p

98US-0108807p

98US-0108807p

98US-0108852p

98US-0108851p

98US-0108851p

98US-0108852p

98US-0108852p

99US-0108852p

99US-0114223p

99US-0114223p

99US-011423p

99US-011423p

99US-011423p

99US-0114037p

99US-014037p

99US-014037p

99US-0150301194

2000WO-US00211194

2000WO-US00211194

2000WO-US00211194

2000WO-US00211194

2000WO-US002851

2000WO-US00316

2000WO-US003365

2000WO-US003367

2000WO-US0036

2000WO-US00
```

17-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
23-SEP-1998
23-SEP

GENENTECH INC.

Baker KP, Botstein I Gao W, Goddard A, C Pan J, Paoni NF, Rc Williams PM, Wood W in D, Desnoyers I, Godowski PJ, (Roy MA, Smith Wi, s L, Eaton DL, Grimaldi JC, (h V, Stewart TA. DL, Ferrara N, C, Gurney AL, t TA, Tumas D, , Fong S; Hillan KJ; , Watanabe CK;

2003-708395/67.

Novel secreted preparation of polypeptide and and and transmembrane a medicament for t d as therapeutic aç ne PRO polypeptides us r treating a condition agents e.g. vaccines. useful ion resp eful in the responsive ť PRO

Example 143; SEQ IJ Ö 447; 555pp; English.

The invention transmembrane relates t to an isolated PRO polypeptide (secreted) having at least 80% amino acid sequence or identity

```
RESULT 142
ADE20349/G
ID ADE203
XX ADE203
XX ADE203
XX ADE203
XX ADE203
XX Human;
XW immute
XW immute
XW immute
XW immute
XW arthili
XW arthili
XW arthili
XW arthili
XW arthili
XW arthili
XW IBerger
XX US2003
XX US2003
XX US2003
XX O1-SEP
PR 01-SEP
PR 01-SEP
PR 01-SEP
PR 02-SEP
PR 01-SEP
PR 01-SEP
PR 10-SEP
PR 10-SEP
PR 10-SEP
PR 11-SEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 17
            01-SEP 1998
01-SEP 1998
01-SEP 1998
02-SEP 1998
02-SEP 1998
09-SEP 1998
09-SEP 1998
09-SEP 1998
10-SEP 1998
10-SEP 1998
11-SEP 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumour; immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2003092883-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADE20349;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADE20349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRO 1410 Tagman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ch 1.8%;
l Similarity 85.0%;
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAACCAGCGCTCAGTCCCG 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00013430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
98US-0098759P

98US-0098821P

98US-0098843P

98US-00995598P

98US-0099598P

98US-00995754P

98US-00997541P

98US-0099753P

98US-0099763P

98US-0099763P

98US-0099812P

98US-0099812P

98US-0099812P

98US-0099812P

98US-0099815P

98US-0100385P

98US-0100682P

98US-0100662P

98US-0100662P

98US-0100664P

98US-0100684P

98US-0100711P

98US-0100711P

98US-010084P

98US-010084P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0098716P.
98US-0098723P.
98US-0098749P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 15.2; DB 1;
Pred. No. 2.1e+02;
0; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                 08-0071998

08-00711998

08-00711998

14-00711998

20-00711998

21-00711998

22-00711998

22-00711998

22-00711998

22-00711998

22-00711998

27-00711998

27-00711998

27-00711998

27-00711998

28-00711998

28-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-00711998

29-0071998

29-0071998

29-0071998

29-0071998

29-0071998

29-0071998

29-0071998

29-0071998

29-0071998

29-0071998

29-0071998

29-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-SEP 1998
23-SEP 1998
24-SEP 1998
25-SEP 1998
26-CCT 1998
30-SEP 1998
31-SEP 1998
30-SEP 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-OCT-1998;
07-OCT-1998;
07-OCT-1998;
              98US-010171P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101741P
98US-0101741P
98US-0101743P
98US-0101743P
98US-0101743P
98US-0102307P
98US-0102307P
98US-0102487P
98US-0102571P
98US-0102571P
98US-0103315P
98US-0105693P
98US-0106033P
98US-0106033P
98US-0106033P
98US-0106033P
98US-0106033P
98US-0106033P
98US-0106033P
98US-0106033P
98US-0106033P
98US-010633P
98US-010637P
98US-010693P
```

Sign of the second seco

멍

20

TAAACAAGCGCTCAGTCCTG

PRO; tumour;

```
RESULT 143
ADESO260/
ADESO260/
XX Human PRO
XX Human; PC
XW Human; PC

01-SEP 1998
01-SEP 1998
01-SEP 1998
02-SEP 1998
02-SEP 1998
09-SEP 1998
09-SEP 1998
10-SEP 1998
10-SEP 1998
11-SEP 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumou immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADE50260;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US2003082626-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRO 1410 Taqman PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-00006116
98US-0098749P
98US-0098831P
98US-0098821P
98US-0098821P
98US-0099842P
98US-0099542P
98US-0099754P
98US-0099754P
98US-0099754P
98US-0099754P
98US-0099763P
98US-0099812P
98US-0099816P
98US-0100385P
98US-0100662P
98US-0100662P
98US-0100662P
98US-0100662P
98US-0100662P
98US-0100664P
98US-0100664P
98US-0100664P
98US-0100663P
98US-0100684P
98US-0100684P
98US-0100684P
98US-0100684P
98US-0100684P
98US-0100684P
98US-0100711P
98US-0100684P
98US-010071P
98US-0101071P
98US-0101074P
98US-01011472P
98US-0101472P
98US-0101472P
98US-0101475P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0098716P
98US-0098723P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   批.
```

17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
18-NOV-1998;
18-NOV-1999;
20-DEC-1999;
20-UIL-1999;
21-JUN-1999;
21-JEC-1999;
21-JE

98US-0108802P 98US-0108806P 98US-0108867P 98US-0108849P 98US-0108849P 98US-0108850P 98US-0108850P 98US-0108850P 98US-0108850P 98US-0108850P 98US-0108850P 99US-01142330 99US-0144758P 99US-0144758P 99US-0144758P 99US-0144758P 99US-0144758P 99US-0146599P 99US-0150201111 99WO-US02011191 99WO-US0201191 2000WO-US0203355 2000WO-US03355 2000WO-US0335 2000W

Query Match Best Local Matches 1

ch 1.8%; l Similarity 85.0%; 17; Conservative

0;

Score 15.2; DB 1, Pred. No. 2.1e+02, 0; Mismatches

DB 1;

Length

Indels

0

Gaps

0

621 TCAACCAGCGCTCAGTCCCG

Match

The invention transmembrane Example 143;

relates t

to having an

isolated

at least

PRO polypeptide (secreted st 80% amino acid sequence

acid sequence

identity

SEQ

ID NO 447; 555pp; English.

New isolated PRO polypeptide useful for tissue typing, mobiological activity of cell, as molecular weight markers electrophoresis, for treating arthritis and tumors.

modulating rs in protein

2003-765493/72.

Baker KP, Botstein D, Desnoyers L, Eaton DL, Ferrara N, Fong S; Gao W, Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Pan J, Paoni NF, Roy MA, Smith V, Stewart TA, Tumas D, Watanabe CK; Williams PM, Wood WI;

(GETH

GENENTECH

INC.

```
RESULT 144
ADE21818/c
ID ADE21818
XX
                                                                                                                                          밁
                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                            Query Match 1.8%;
Best Local Similarity 85.0%;
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-NOV-1998
18-NOV-1998
18-NOV-1998
18-NOV-1998
18-NOV-1998
18-NOV-1998
18-NOV-1998
22-DEC-1998
30-DEC-1999
23-JUN-1999
23-JUN-1999
23-JUN-1999
24-SEP-1999
25-SEP-1999
26-DEC-1999
27-DEC-1999
28-DEC-1999
29-DEC-1999
29-DEC-1999
29-DEC-1999
20-JUN-2000
21-FEB-2000
21-FEB-2000
21-FEB-2000
21-MAY-2000
                                                                                                                                                                                                                                                                                                                     Novel isolated PRO polypeptides useful for tissue typing, biological activity of cell, as molecular weight markers electrophoresis, for treating arthritis and tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker KP, Botstein D, Desnoyers
Gao W, Goddard A, Godowski PJ,
Pan J, Paoni NF, Roy MA, Smith
Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GETH
                                                                                                                                                                                    621
                                                                                                                                                                                                                                                                                                                                                                                                                    2003-765413/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             _
                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENENTECH
                                                                                                                                     TCAACCAGCGCTCAGTCCCG
                          standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0108850P

98US-0108851P

98US-0108851P

98US-0108858P

98US-0113296P

98US-0113296P

98US-0113296P

99US-0144037P

99US-0144758P

99US-0144758P

99US-0145698P

99US-0145698P

99US-0145698P

99US-0162506P

99US-0162506P

99US-0162506P

1000WO-US0201194

99US-0162506P

1000WO-US0305841

1000WO-US0305841

1000WO-US005841

1000WO-US005841

1000WO-US014941

100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INC.
                          DNA;
                          20
                          ВP
                                                                                                                                                                                                                             Score 15.2; D
Pred. No. 2.1e
0; Mismatches
                                                                                                                                                                                    640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L, Eaton DL, Ferrara N, Fong S; Grimaldi JC, Gurney AL, Hillan KJ; V, Stewart TA, Tumas D, Watanabe
                                                                                                                                                                                                                                                        15.2;
No. 2
                                                                                                                                                                                                                                                        DB 1;
.1e+02;
                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                20;
                                                                                                                                                                                                                                                                                                                                             modulating in protein
                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CK,
                                                                                                                                                                                                                                  0
```

23-SEP 1998 24-SEP 1998 24-SEP 1998 24-SEP 1998 24-SEP 1998 29-SEP 1998 29-SEP 1998 29-SEP 1998 29-SEP 1998 30-SEP 1998 30-OCT 1998 30-OC

98US-0101477P
98US-0101741P
98US-0101741P
98US-0101741P
98US-0101916P
98US-01012240P
98US-0102240P
98US-0102240P
98US-0102331P
98US-0102331P
98US-0102570P
98US-0102570P
98US-0102570P
98US-0102587P
98US-0103315P
98US-0106029P
98US-0106029P
98US-0106029P
98US-0106029P
98US-0106029P
98US-0106932P
98US-0106932P
98US-0106932P
98US-0106932P
98US-0106902P
98US-0106902P
98US-0106850P
98US-010880P
98US-010880P
98US-010880P
98US-010880P
98US-010889P
98US-010880P
98US-010889P

AX
ADE21818; ADE21818; 29-JAN-2004 (f Human) PRO 1410 Human PRO 1410 Human PRO 1410 Human PRO 1410 Arthitis; pri immune response umbilical vein arthitis; woun Berger disease; dermattitis; her Homo sapiens. US2003082628-A1 01-SEP-1998; 01-SEP-1998; 01-SEP-1998; 02-SEP-1998; 02-SEP-1998; 03-SEP-1998; 03-SEP-1998; 03-SEP-1998; 10-SEP-1998; 10-SEP-1998; 11-SEP-1998; 13-SEP-1998; 14-SEP-1998; 24-SEP-1998;
Nomean PRO 1410 Teqman PCS primer #1. Haman; PRO, primer; secreted precin; transmembrane protein; PRO; tumour; immune response; cardiac insufficiency disorder; calcium flux; arthritis; wound healing oliabetes; secletal music cealing flux; arthritis; wound healing oliabetes; secletal music cealing beasit; Berger disorder; particular protein; p

29-SEP-1998 29-SEP-1998 29-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 01-OCT-1998 01-OCT-1998 07-OC
98US-0102207P 98US-0102307P 98US-0102331P 98US-0102331P 98US-0102570P 98US-0102570P 98US-0102570P 98US-0103258P 98US-0103258P 98US-0103258P 98US-0103258P 98US-0103258P 98US-0103678P 98US-0103678P 98US-0103678P 98US-0103678P 98US-0103678P 98US-0103678P 98US-0103678P 98US-010368P 98US-0105602P 98US-0105602P 98US-010662P 98US-010662P 98US-010682P 98US-010682P 98US-010682P 98US-010682P 98US-010682P 98US-010682P 98US-010682P 98US-010682P 98US-010682P 98US-010682P 98US-010682P 98US-010682P 98US-010682P 98US-010684P 98US-010885P 98US-010885P

```
ADE14461
ID ADE
XX
AC ADE
XX
DT 29-
XX
DE HSD
XX
KW OSE
                                                                                                                                       밁
                                                                                                                                                                                                                          CCXVXVXVIIII
                                                                                                        RESULT 145
                                                                                                                                                          Ś
                                                                                                                                                                               Matches
                                                                                                                                                                                          Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-FEB-2000;
02-MAR-2000;
15-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                24-AUG-2000;
08-NOV-2000;
10-NOV-2000;
01-DEC-2000;
28-FEB-2001;
01-MAR-2001;
01-JUN-2001;
20-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-OCT-1999;
30-NOV-1999;
02-DEC-1999;
16-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-JUL-1999;
01-SEP-1999;
15-SEP-1999;
 osteopathic; antidepressant; anorectic; antidiabetic;
                     HSD11B1 antisense oligonucleotide seq id 63.
                                           29-JAN-2004
                                                                                   ADE14461 standard;
                                                                                                                                                                                                                          transmembrane
                                                                                                                                                                                                                                   The invention
                                                                                                                                                                                                                                                         Example 143; SEQ ID NO 447; 548pp; English.
                                                                                                                                                                                                                                                                            hypo-insulinemia, sports injuries and arthritis.
                                                                                                                                                                                                                                                                                       Novel secreted and transmembrane PRO polypeptides useful for treating cancers, kidney disorders, Crohn's disease, diabetes mellitus, hyper-
                                                                                                                                                                                                                                                                                                                       WPI; 2003-755105/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JAN-1999;
16-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                               (GETH ) GENENTECH INC
                                                                                                                                                           621 TCAACCAGCGCTCAGTCCCG 640
                                                                                                                                                                                                                                                                                                                                     KP, Bould A, Godunum, Goddard A, Godunum, Paoni NF, Roy MA, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                           <del>X</del>
                                                                                                                                       20
                                                                                                                                                                               l Similarity
17; Conserv
                                                                                                                                       TAAACAAGCGCTCAGTCCTG
                                                                                                                                                                                                                                                                                                                                                        Botstein D, Desicy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; 2000WC-US005004.
; 2000WC-US005841.
; 2000WC-US006884.
; 2000WC-US013705.
; 2000WC-US0134042.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US000219.
2000WO-US000376.
2000WO-US003565.
2000WO-US004342.
                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                   2001WO-US021066.
2001WO-US021735.
2001US-00946374.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US006520.
2001WO-US006666.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US030952.
2000WO-US030873.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US014941.
2000WO-US015264.
                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US032678.
                                                                                                                                                                                                                        relates to an isolated PRO polypeptide (secreted protein) having at least 80% amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US028313.
99WO-US028551.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0145698P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US000106.
99US-0129674P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US030095.
                                                                                   DNA;
                                                                                                                                                                                            85.0%;
                                                                                   20
                                                                                                                                                                                                                                                                                                                                                   Desnoyers L, Eaton DL, Ferrara N,
owski PJ, Grimaldi JC, Gurney AL,
MA, Smith V, Stewart TA, Tumas D,
                                                                                   쁑
                                                                                                                                                                                0
                                                                                                                                                                                          Score 15.2;
Pred. No. 2
                                                                                                                                                                                Mismatches
                                                                                                                                                                                            1e+02
                                                                                                                                                                                                      B
                                                                                                                                                                                                      <u>'</u>
                                                                                                                                                                                                     Length 20;
                                                                                                                                                                                                                                                                                                                                                    , Fong S;
Hillan KJ;
, Watanabe C
                                                                                                                                                                                0,
                                                                                                                                                                                                                         lor
identity
                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                       <u>С</u>;
                                                                                                                                                                                                                                                                                       or
P
                                                                                                                                                                                0
```

```
RESULT 146
AAC91374/c
밁
                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention describes a compound (I) 8-80 nucleobases in length targeted to a nucleic acid molecule encoding hydroxysteroid 11-beta dehydrogenase 1, inhibiting expression of hydroxysteroid 11-beta dehydrogenase 1. The methods and compositions of the present invention are useful for treating disorders associated with hydroxysteroid 11-beta dehydrogenase 1 expression, such as osteoporosis, depression and metabolic disorders like obesity, diabetes, atherosclerosis and hyperlipidaemia. This sequence represents an antisense oligonucleotide used to control the expression of mouse hydroxysteroid 11-beta dehydrogenase 1
                                                                                                                                                                                       Oligo JT-296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New antisense compounds useful for treating disorders associated with hydroxysteroid 11-beta dehydrogenase 1 expression, such as osteoporosis, depression and metabolic disorders like obesity, diabetes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antiarteriosclerotic; antilipemic; antisense-thorapy; hydroxysteroid 11-beta dehydrogenase 1; osteoporosis; depression; metabolic disorder; obseitty HSD11B1; diabetes; atherosclerosis; hyperlipidaemia; antisense technology; mouse; ss.
              01-JUN-1999;
                                      25-MAY-2000; 2000WO-US014324
                                                                   07-DEC-2000
                                                                                             WC200073332-A1
                                                                                                                       Homo sapiens.
                                                                                                                                                transplant rejection; pJ117;
                                                                                                                                                             Human; annexin; chelation site; nuclear imaging; apoptosis;
                                                                                                                                                                                                                  16-MAR-2001
                                                                                                                                                                                                                                                                        AAC91374
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20 BP; 6 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dehydrogenase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 16; SEQ ID NO 63; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       atherosclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003198965-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SISI (-SISI)
                                                                                                                                                                                                                                                                                                                                                                  458
                                                                                                                                                                                                                                                                                                                                                                                          al Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                        ш
                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                  CCAGGAAGAGCTCCAGGAAC 477
                                                                                                                                                                                                                                                                                                                                          CCAGGGAGAGCACCAGGATC 20
                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                         for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002US-00126355.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002US-00126355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PHARM INC.
                                                                                                                                                                                                                 (first entry)
               99US-00324096
                                                                                                                                                                                    construction of
                                                                                                                                                                                                                                                                        DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 6 C; 7 G;
                                                                                                                                                                                                                                                                                                                                                                                                       1.8%;
                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                            Score 15.2; DB 1;
Pred. No. 2.1e+02;
0; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 T;
                                                                                                                                                                                       annexin expression vector pJ117.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                      Length 20;
                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                             Gaps
```

Hag - Jan I

```
RESULT 147
AAAF7992/c
ID AAF799
AC GAAF799
AC GAAF799
AC GAMY
AC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뮻. &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence was used in the construction of an expression vector encoding a modified annexin having an N-terminal chelation site, which comprises an amino acid extension including a glycine and a cystesine residue. The modified annexin is useful for imaging vascular thrombi or apoptosis which is associated with response to a chemotherapeutic agent or with rejection as a result of transplantation. The modified annexin can effectively chelate a radionuclide and retain annexin bioactivity. It can be readily prepared in high radiochemical yield and with high radiochemical purity. In contrast to conventional conjugation chemistries that provide a distribution of conjugation products, the modified annexin has a single chelation site remote from the site of biological activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GL50; antigen; antigen presenting cell; T cell proliferation; tumour; graft-versus-host disease; autoimmune disease; allergy; viral infection; acquired immune deficiency syndrome; AIDS; vaccine; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel modified annexin useful for imaging vascular thrombi and apoptosis, has N-terminal chelation site comprising amino acid extension which comprises a glycine and a cysteine residue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 21 BP; 5 A; 9 C; 4 G; 3 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page 12; 39pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-MAR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAF79922 standard; DNA; 21 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-080465/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                 21-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-SEP-2000; 2000WO-US025892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200121796-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCR primer used to amplify human and murine GL50 cDNA sequences
                                                                                                                                                                                                                                                                                                                                                                      (GEMY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ( WIW )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600 TGGCGGGTGGACGTGGCCAT 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                     response and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                      GENETICS
                                                                                                                                                                                                                                                                                                        Dunussi-Joannopolulos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     reecaeerecrereccar 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                           Page 117; 195pp; English
                                                                                                                                                  nucleic acid encoding a GL50 polypeptide for modulating nse and reducing the proliferation of a tumor cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0155043P
                                                                                                                                                                                                                                                                                                                                                                      INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.8%;
                                                                                                                                                                                                                                                                                                                                                                      INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 15.2;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; DB 1;
2.3e+02;
hes 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

```
8888888888888888
                                              antigens on the surface of antigen presenting cells, which costimulate T cell proliferation and bind to costimulatory receptor ligands on T cells. GL50 modulating agents are used to modulate an immune response in a subject. GL50 polypeptides are used to modulate T cell costimulation, and to reduce the proliferation of a tumour cell. Diseases that can be treated using GL50 molecules are graft-versus-bost disease, autoimmune disease, allergies, acquired immune deficiency syndrome (AIDS), and viral infections. The GL50 molecules can be used in vaccines. GL50 polymucleotides can be used to locate gene regions associated with genetic disease, in tissue typing, and in forensic identification of a biological sample
   Sequence 21 BP; 2 A; 11 C; 5
G; 3 T; 0 U; 0 Other;
```

```
Query Match
Best Local
                                           Matches
                   782 GTGTGAGCGCAAACTGCAGG 801
                                      1.8%;
il Similarity 85.0%;
17; Conservative
20
ĠŢĠĊĠĀĠĊĠĊĀĠĀĊŢĠĊĠĠĠ
                                         0; Mismatches
                                                     Score 15.2; DB 1;
Pred. No. 2.3e+02;
 μ.
                                                                Length
                                           Indels
                                            0
```

0

밁 δ

```
ARBSULT 148
ARA354
ID ARA354
XX ARA354
XX O6-AUG
DT 25-UUL
XX Myrtac
XX ISOSAM
PR 23-SEP
PR 23-SEP
PR 23-SEP
PR 23-SEP
PR 16-FEB
XX IFEB
XX ISOSAM
XX ISOSAM
XX ISOSAM
PT TACIO
XX ISOSAM
PT PT PARTIC
PT PART
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Myrtaceae; microsatellite; isolation; genotyping; plant; tea tre breeding; Melaleuca alternifolia; broad-spectrum germicidal oil; pharmaceutical; cosmetic; identification; detection; PCR primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Myrtaceae microsatellite scu056TT detection PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-AUG-2003
25-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAA35421 standard; DNA; 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (revised)
(first en
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCR primer; ss
```

30-MAR-2000 WO200017341-A1.

23-SEP-1998; 16-FEB-1999; 98AU-00006099. 99AU-00008718.

23-SEP-1999;

99WO-AU000820

(BUSI-) BUSINESS & RES MANAGEMENT PTY LTD.

Rossetto ĽS, M, Mclauchlan A, Harriss FCL, Maguire TL, Edwards KJ; Henry RJ, Baverstock

WPI; 2000-292840/25.

Isolating microsatellites from Myrtaceae, useful for genotyping, particularly in breeding programs for tea tree, by reacting plant nucleic acid with immobilized oligonuclectides.

Claim 10; Page 36; 100pp; English.

A method has been developed of isolating a microsatellite (MS) from nucleic acid extract of a plant of Myrtaceae family. The method comprises: (i) treating the extract with one or more immobilised, single-stranded oligonucleotides (ON) having a consensus MS repeat sequence (MSRS) or its complement; (ii) washing under specified stringency conditions; (iii) eluting nucleic acid bound to ON; and (iv) sequencing the eluted nucleic acids to identify those containing an MSRS. Microsatellites (MS) isolated by the method, specifically from Melaleuca alternifolia (the tea tree, a source of a broad-spectrum germicidal oil, useful in pharmaceuticals and cosmetics), are useful as genotyping markers, particularly for breeding plants that produce the oil in higher

primers AAF79922-27 A encoding human and

were used to murine GL50 p

o amplify sequences polypeptides. GL50

from the 3' end molecules are

ō.

```
RESULT 149
ABX94818/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   breast; cervix; prostate; heart; ovary; uterus; metaplasia of ossophagus; Helicobacter pylori-associated gastritts; tubular adenoma; tumour marker; villous adenoma; Barrett dysplasia; cervical intraepithelial neoplasia; anticancer agent; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; antibody; murine antibody NM58-49/69; cysteine-rich PGF receptor; glycoprotein receptor; groliferating teml; stomach carcinoma; vaccine; CFR-1 protein; human antibody 103/51; immunoglobuiln M; cytostatic; gut; antibacterial; antiinflammatory; receptor antagonism; cancer; stomach; opesophagus; rectum; liver; gall bladder; panoreas; lung; brochus; bespinated to the composition of the c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   yield or of better quality. Primers based on MS are useful for both inter - and intra-species genotyping. The selected washing conditions improve efficiency of recovery of microsatellites (MS) and reduce the number of washing stages required. Particularly about 86% of recovered sequence contain an MS repeat sequence, compared with 50-70% when the conventional washing procedure is followed. AAA35313 to AAA3557, and AAA3552 to AAA3557b represent nucleotide sequences from the present invention which contain microsatellite sequences. AAA35356 to AAA35561 represent oligonucleotide PCR primers used for identifying Myrtaceae microsatellite sequences. (Updated on 06-AUG-2003 to correct OS field.)
                                                                                                                                                                                                                            Mueller-Hermelink HK,
                                                                                                                                                                                                                                                                                                                                                                                               24-JUL-2001; 2001DE-01036009.
09-MAR-2002; 2002DE-01010425.
                                                                                                                                                                      WPI; 2003-256436/25
                                                                                                                                                                                                                                                                                (MUEL/) MUELLER-HERMELINK H K.
(VOLL/) VOLLMERS H.
(HENS/) HENSEL F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-JUL-2002; 2002WO-DE002699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003011907-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human cysteine-rich FGF receptor (CFR) PCR primer CFR-For1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABX94818 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 22 BP; 3 A; 1 C; 11 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
nes 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACTGTGGGTGGTGGAGTTG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACTGTGGGTGCTGAAGCTG 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       specification"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mod_base= OTHER
/mote= "This nucleotide is depicted as o in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                                                                                                         Vollmers H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 15.2;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                            Hensel F;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.4e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
```

Disclosure; Page 21; 49pp;

German

New glycoprotein receptor of treatment and diagnosis of

on surface of f cancer and fo

for drug

cells, useful for screening, also n

specific antibody.

```
RESULT 150
AAX60366/c
ID AAX603
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CC surface membrane of strongly proliferating cells, especially stomach carcinoma, having at least one determinant that corresponds with a CC determinant of CFR-1 protein and binding specifically to human antibody C103/51 and/or the murine antibody 58/47-69 (immunoglobulin M). The CC products of the invention have cytostatic, antibacterial and corresponds with a string family or activity and can be used in a vaccine or for receptor CC antiinflammatory activity and can be used in a vaccine or for receptor CC antagonism. The novel receptor is used for therapeutic in vivo generation CC of antibodies, for treatment and prevention of cancer (of oesophagus, CC stomach, gut, rectum, liver, gall bladder, pancreas, lung, bronchi, CC breast, cervix, prostate, heart, ovary and/or uterus), for treating a wide range of precancerous states (e.g. Helicobacter pylori-associated CC gastritis, tubular or villous adenoma, Barrett dysplasia/metaplasia of cesophagus, cervical intraepithelial neoplasia etc.), for diagnosis (as a cumour marker) and for identifying potential anticancer agents from their cability to bind selectively to amplify the human cysteine-rich rGF creceptor (CFR) described in the disclosure of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                              AAX60358-78 represents PCR primers and probes for lactic acid bacteria. They are useful for the identification of lactic acid bacteria and the detection of species specificity, especially comprising extraction of DNA in a sample and PCR using the above primers. The primers can be used for identification of lactic acid bacteria in fermented milk products without culture. The procedure can be also applied to analysis of intestinal bacterial flora for prevention and treatment of diseases of digestive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCR primer; probe; lactic acid bacteria; identification; species specificity; fermented milk product; intestinal bacterial flora analysis; digestive tract disease;
                                                                                                                                                                                                                                                  New primers and probes - useful for identifying and analyzing lactic acid
                                                                                                                                                                                                                                                                                         WPI; 1999-388482/33.
                                                                                                                                                                                                                                                                                                                                                                   19-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                         14-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                              08-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JP11151097-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAX60366 standard; DNA; 23 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 22 BP; 7 A; 7 C; 5 G; 2 T; 0 U; 1 Other;
                                                                                                                                                                                                                                                                                                                              (HONS ) YAKULT HONSHA KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PCR primer and probe for lactic acid bacteria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACTGTGGGTGCTGAAGCTG 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           recrerrecrecreaacere 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                           7; 18pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                      97JP-00255027
                                                                                                                                                                                                                                                                                                                                                                                                           98JP-00260041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 15.2;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.4e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
```

0

. I.S.,

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 1.8%;
Best Local Similarity 85.0%;
Matches 17; Conservative
01-SEP-1998;
01-SEP-1998;
02-SEP-1998;
02-SEP-1998;
02-SEP-1998;
02-SEP-1998;
03-SEP-1998;
03-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
10-SEP-1998;
11-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; PRO polypeptide; membrane bound protein; receptor; transmembrane; secretion; immunoadhesion; pharmaceutical; PCR primer; hybridisation; probe; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200012708-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA37283;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAA37283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            339 CAACTTGGTGCCAGCGCCAA 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRO1563 forward PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAATTGGTGCAAGCACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP; 6
   99WO-US020111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA; 23
 3-0098716

3-0098736

3-0098831

3-0098831

3-0099836

3-0099536

3-0099536

3-0099536

3-0099741

3-0099741

3-009973

3-009974

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-009973

3-0099815

3-0099815

3-0099815

3-0099815

3-0099815

3-0099815

3-0099815

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662

3-000662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뫈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ŧ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO:318.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15.2;
No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; diagnosis;
; screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .,
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
    23-SEP-1998

23-SEP-1998

23-SEP-1998

23-SEP-1998

24-SEP-1998

24-SEP-1998

24-SEP-1998

24-SEP-1998

24-SEP-1998

24-SEP-1998

24-SEP-1998

29-SEP-1998

29-SEP-1998

30-SEP-1998

30-OCT-1998

30-OC
                                                                                                                                                                                                                              98US-0101472P

98US-0101474P

98US-0101475P

98US-0101475P

98US-0101738P

98US-0101738P

98US-0101739P

98US-0101739P

98US-0101739P

98US-0102207P

98US-0102207P

98US-0102230P

98US-0102331P

98US-0102331P

98US-0102571P

98US-0102571P

98US-0103315P

98US-0103315P

98US-0103315P

98US-0103315P

98US-0103315P

98US-0103315P

98US-0103315P

98US-0103315P

98US-0103315P

98US-0103178P

98US-0105103P

98US-0105103P

98US-0105694P

98US-0105694P

98US-0105694P

98US-0105694P

98US-0105694P

98US-0105694P

98US-0105694P

98US-0105694P

98US-0105694P

98US-0106023P

98US-0106023P

98US-0106033P

98US-0106033P

98US-0106033P

98US-0106033P

98US-0106033P

98US-0106033P

98US-0106033P

98US-0106033P

98US-0106033P
 98US-0106464P
98US-0106856P
98US-0106902P
98US-0106903P
98US-0106932P
98US-0106934P
98US-0106934P
98US-0108775P
98US-0108775P
98US-0108775P
98US-0108778P
98US-0108801P
98US-0108801P
98US-0108800P
98US-0108800P
```

Page 145

```
RESULT 152
AAF54427
ID AAF544
XX AAF544
AC AAF544
XX DANA en
XX Secret
XX Secret
XX W02000
PM W02000
PN W0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local (
    23 JUN-1999
20 JUL-1999
26 JUL-1999
26 JUL-1999
20 CT-1999
30 NOV-1999
30 NOV-1999
16 DEC-1999
05 JAN-2000
06 JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-NOV-1998;
17-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA37022 to AAA37144 encode the new isolated human transmembrane, receptor or secreted PRO polypeptides given in AAY99340 to AAY99462. The transmembrane and receptor PRO proteins can be used for screening of potential peptide or small molecule inhibitors of the relevant receptor/ligand interactions. The polypeptides and nucleotide sequences encoding then have various industrial applications, including uses as pharmaceutical and diagnostic agents. AAA37145 to AAA3730 represent PCR primers and hybridisation probes used in the isolation of the PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New mammalian DNA sequences encoding transmembrane, PRO polypeptides, useful for screening of potential molecule inhibitors of the relevant receptor/ligand
                                                                                                                                                                                                                                                          18-FEB-2000;
                                                                                                                                                                                                                                                                                                     28-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                           Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                       Secreted; transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAF54427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAF54427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                encoding protein of the invention #89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           l Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENENTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGAAGCTCACAGATGGATC 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGAAGCTGCCAGATGGCTC 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23 BP; 4 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goddard A,
    99US-0141037P.
99US-0144758P.
99US-01445688P.
99WO-US020111.
99WO-US020813.
99WO-US02853.
99WO-US0205.
2000WO-US000276.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 451; 773pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                          2000WO-US004342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                from the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0108867P.
98US-0108925P.
98US-0108848P.
98US-0108849P.
98US-0108850P.
98US-0108851P.
98US-0108852P.
98US-0108858P.
98US-0108954P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.8%;
85.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23
                                                                                                                                                                                                                                                                                                                                                                                                                                       gene therapy; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 15.2; D
Pred. No. 2.6e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Æ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Smith V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .6e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Watanabe CK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      receptor or secreted peptide or small interactions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               꾭;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

```
RESULT 153
ACD68466
ID ACD684
XX ACD684
AC ACD684
XX ACD684
AC ACD684
XX Human;
KW Human;
KW T-lymg
KW Cardia
KW Vascul
KW Insphre
KW Cardia
KW Vascul
KW Insphre
KW Cartil
XX Insphre
KW Cartil
XX Insphre
XX US2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
01-SEP-1998;
01-SEP-1998;
01-SEP-1998;
01-SEP-1998;
02-SEP-1998;
02-SEP-1998;
02-SEP-1998;
09-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; secreted and transmembrane protein; PRO; angiogenesis; endothelial cell proliferation; wound healing; immune response; T-lymphocytes proliferation; neonatal heart hypertrophy; tumour; cardiac insufficiency disorder; calcium flux; inflammation; vascular endothelial growth factor-stimulated proliferation; wascular endothelial growth factor-stimulated proliferation; mammalian kidney mesangial cell proliferation; Berger disease; nephropathy; Schamlein-Henoch purpura; cellac disease; Crohn's disease; nephropathy; Schamlein-Henoch purpura; cellac disease; Crohn's disease; pancreatic beta-cell precursor cell differentiation; thalassemias; obesity; auditory hair cell regeneration; hearing loss; bone disorder; cartilage disorder; sports injury; arthritis; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to secreted and transmembrane proteins. These proteins and the DNA encoding them may be used as hybridization probes, in chromosome and gene mapping and in the generation of antisense RNA and DNA. They may also be used used to generate either transgenic animals or knockout animals which are in turn useful for development and screening of therapeutically useful reagents. The nucleic acids may also be used in gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gao W, O
Pan J, I
Williams
                                                                                                                                                                                                                                      11-DEC-2001;
                                                                                                                                                                                                                                                                                       17-APR-2003
                                                                                                                                                                                                                                                                                                                                        US2003073130-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel human secreted and transmembrane protein related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACD68466 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 23 BP; 4 A; 9 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Secreted and transmembrane proteins and nucleic acids designated PRO, useful as hybridization probes, in chromosome and gene mapping and gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-071395/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KP, Botstein D, Desnoyers L, Eaton DL, Ferrara N, Goddard A, Godowski PJ, Grimaldi CJ, Gurney AL, Paoni NF, Roy MA, Smith V, Stewart TA, Tumas D, ams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             l Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGAAGCTCACAGATGGATC 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGAAGCTGCCAGATGGCTC 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fig 177; 787pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                      2001US-00015869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
98US-0098716P.
98US-0098723P.
98US-0098749P.
98US-0098750P.
98US-0098820P.
98US-0098843P.
98US-0098536P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 15.2;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .6e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        primer #91.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               I, Fong S;
Hillan KJ;
), Watanabe CK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

* \$2.00 ** 1.36

Page

147

98US-0099763P 98US-0099763P 98US-0099812P 98US-0099815P 98US-01099815P 98US-0100398P 98US-01100398P 98US-01100584P 98US-01100662P 98US-01100664P 98US-01100664P 98US-01100664P 98US-011010684P 98US-011010684P 98US-011010684P 98US-01101071P 98US-011010684P 98US-01101071P 98US-01101171P 98US-01101171P 98US-01101177P 98US-01102307P 98US-01103307P 98US-01103315P 98US-01103375P 98US-01103375P 98US-01103375P 98US-01103771P	98US-0099596P. 98US-0099598P. 98US-0099602P. 98US-0099642P. 98US-0099741P. 98US-0099754P.
, \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	PR P
98US-0116622P 98US-0116622P 98US-0116622P 98US-0116622P 98US-0116623P 98US-0116624P 98US-0116644P 98US-01166464P 98US-0116695P 98US-0116695P 98US-0116895P 98US-0116894P 98US-0116894P 98US-01108897P 98US-01108867P 98US-01108867P 98US-01108867P 98US-01108867P 98US-01108867P 98US-01108867P 98US-01108867P 98US-01108867P 98US-01108867P 98US-0110881P 98US-0110881P 98US-01108807P 98US-0110881P 98US-01108807P 98US-01108033678 2000WO-US01332678 2000WO-US01332678 2000WO-US01332678 2000WO-US01332678 2000WO-US01332678 2000WO-US01332678 2000WO-US01332678	98US-0105266P 98US-0105693P 98US-0105694P 98US-0105807P 98US-0105882P 98US-0105882P

09-SEP-1998
10-SEP-1998
110-SEP-1998
110-SEP

```
RESULT 154
ACH04568
ID ACH045
XX
ACH045
XX
ACH045
XX
ACH045
XX
ACH046
XX
ACH046
XX
ACH046
XX
ACH046
XX
ACH046
ACH046
XX
ACH046
ACH046
XX
ACH046
ACH046
XX
ACH046
AC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 17
01-SEP-1998
01-SEP-1998
01-SEP-1998
01-SEP-1998
02-SEP-1998
02-SEP-1998
02-SEP-1998
09-SEP-1998
09-SEP-1998
09-SEP-1998
10-SEP-1998
10-SEP-1998
10-SEP-1998
10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                      Human; ss; PCR; secreted protein; transmembrane protein; PRO; vulnerary; cardiant; antidiabetic; anorectic; antiarthritic; angiogenesis; cancer; adrenal cortical capillary; endothelial cell growth; wound healing; stimulated T-lymphocyte proliferation; immune response suppression; neonatal heart hypertrophy; cardiac insufficiency disorder; vascular endothelial growth factor; inflammation; mononuclear cell; eosinophil; diabetes; obesity; or hyper-insulinaemia; hypo-insulinaemia; condition; redifferentiation; bone disorder; cartilage disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gao W, G
Pan J, P
Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel isolated PRO polypeptides e.g. PRO1130, PRO1275, PRO1418, PRO1555, PRO1787 that modulate glucose or free fatty acid uptake by skeletal muscle cells, and are useful for treating diabetes, hyper- or hypoinsulinemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-JUN-2001; 2001WO-US019692.
29-JUN-2001; 2001WO-US021066.
09-JUL-2001; 2001WO-US021735.
04-SEP-2001; 2001US-00946374.
                                                                                                                                                                                                                                                                                 06-DEC-2001;
                                                                                                                                                                                                                                                                                                               06-MAR-2003.
                                                                                                                                                                                                                                                                                                                                             US2003044841-A1
                                                                                                                                                                                                                                                                                                                                                                                                         sports
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human secreted/transmembrane protein PRO1563 PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACH04568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-585293/55.
                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               669 CTGAAGCTCACAGATGGATC 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KP, Botstein D, Desno, Goddard A, Godowski, Paoni NF, Roy MA, Sams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           w
                                                                                                                                                                                                                                                                                                                                                                                                         injury; arthritis; primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGAAGCTGCCAGATGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                 2001US-00006856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
98US-0098716P.
98US-0098723P.
98US-0098750P.
98US-0098750P.
98US-0098631P.
98US-0098843P.
98US-0099843P.
98US-0099536P.
98US-009953P.
98US-0099642P.
98US-0099754P.
98US-0099754P.
98US-0099754P.
98US-009973P.
98US-009973P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Desnoyers L, Eaton DL, Ferrara N,
owski PJ, Grimaldi JC, Gurney AL,
MA, Smith V, Stewart TA, Tumas D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 15.2;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .6e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           , Fong S;
Hillan KJ;
Watanabe CK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
    30-SEP 1998
01-OCT 1998
01-OCT 1998
02-OCT 1998
06-OCT 1998
07-OCT 1998
07-OCT 1998
07-OCT 1998
07-OCT 1998
08-OCT 1998
08-OCT 1998
08-OCT 1998
108-OCT 1998
108-OCT 1998
20-OCT 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-SEP-1998;
24-SEP-1998;
24-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-SEP-1998;
23-SEP-1998;
23-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-SEP-1998;
23-SEP-1998;
23-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-SEP-1998;
18-SEP-1998;
22-SEP-1998;
23-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-SEP-1998;
18-SEP-1998;
18-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-SEP-1998;
15-SEP-1998;
15-SEP-1998;
15-SEP-1998;
16-SEP-1998;
16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-SEP-1998
17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-SEP-1998
   98US-0101279P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101741P
98US-0101916P
98US-0102240P
98US-0102240P
98US-0102240P
98US-0102240P
98US-0102240P
98US-0102331P
98US-010268P
98US-010268P
98US-010331P
98US-010331P
98US-010331P
98US-010331P
98US-010331P
98US-0103449P
98US-010347P
98US-010351P
98US-010368P
98US-010580P
98US-010580P
98US-010580P
98US-010580P
98US-010580P
98US-010580P
98US-010580P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0099812P

98US-0099815P

98US-0100385P

98US-0100390P

98US-0100584P

98US-0100661P

98US-0100662P

98US-0100662P

98US-0100662P

98US-0100663P

98US-0100684P

98US-0100711P

98US-0100919P

98US-0100949P

98US-0100848P

98US-0100848P

98US-0100849P

98US-0100849P
```

12.77 S

TA,

Length

23;

Indels

0

Gaps

0

polynucleotides insufficiency s sports injuries

and

Gurney AL, A, Tumas D,

Hillan KJ; Watanabe

CK;

```
98US-0106029P
98US-0106033P
98US-0106033P
98US-0106033P
98US-01062478P
98US-01062478P
98US-0106384P
98US-01064649P
98US-01064694P
98US-010646664
98US-0106905P
98US-0106905P
98US-0106905P
98US-0106905P
98US-0106905P
98US-0108806P
98US-010880
  Desnoyers L,
  Eaton DL,
    Ferrara
  z
    Fong
  S
  RESULT 155
ACD68112
IID ACD6811
XX ACD6811
XX ACD6811
XX Novel
XX Novel
XX Human;
XX Human;
XX Homo s
PN US2003
XX 17-APR
XX 04-SEP
PR 01-SEP
PR 10-SEP
PR 10-SEP
PR 10-SEP
PR 10-SEP
PR 110-SEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              X P P P P X X X P P I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 17
01.SEP 1998
01.SEP 1998
01.SEP 1998
02.SEP 1998
02.SEP 1998
02.SEP 1998
09.SEP 1998
09.SEP 1998
09.SEP 1998
09.SEP 1998
10.SEP 1998
110.SEP 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gao W, Goddard A,
Pan J, Paoni NF,
Williams PM, Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; secreted tissue typing; c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel secreted and transmembrane polypeptides and pencoding them useful for treating various cardiac i disorders, bone and/or cartilage disorders such as arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel human secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACD68112;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACD68112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2003073129-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2003-492259/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity 85.(
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGAAGCTGCCAGATGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGAAGCTCACAGATGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-00946374
  98US-0098716P

98US-0098749P

98US-0098750P

98US-009873P

98US-0098821P

98US-0099536P

98US-0099596

98US-009959P

98US-0099741P

98US-0099741P

98US-0099763P

98US-0099763P

98US-0099763P

98US-0099792P

98US-0099792P

98US-0099812P

98US-0099812P

98US-0109815P

98US-0109815P

98US-010684P

98US-0100662P

98US-0100662P

98US-0100663P

98US-0100684P

98US-0100684P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d and transmembrane protein; PRO; gene the chromosome identification; vaccine; PCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , Godowski
Roy MA, S
d WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    i PJ,
Smith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 15.2; DB 1;
Pred. No. 2.6e+02;
0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Grimaldi JC,
V, Stewart
```

protein

related

#91.

therapy; vaccine; primer

primer;

Baker

Κ₽,

Botstein D, ENTECH 28-OCT-1998
28-OCT-1998
28-OCT-1998
28-OCT-1998
28-OCT-1998
28-OCT-1998
28-OCT-1998
29-OCT-1998
30-OCT-1998
30-OCT-1998
31-NOV-1998
31-NOV-1999
31-SEE-1999
31-SEE-1999
31-SEE-1999
31-SEE-1999
31-SEE-1999
31-SEE-1999
31-SEE-1999
31-NOV-1999
31-SEE-1999
31-NOV-1999
31-NOV

```
10-NOV-1998

17-NOV-1998

17-NOV-1998

17-NOV-1998

17-NOV-1998

17-NOV-1998

17-NOV-1998

17-NOV-1998

17-NOV-1998

18-NOV-1998

18-NOV-1998

18-NOV-1998

18-NOV-1998

18-NOV-1998

18-NOV-1998

18-NOV-1998

18-NOV-1999

16-APR-1999

16-DEC-1999

16-DE
                                                                                                                    Baker KP,
Gao W, G
Pan J, F
Williams
                         Novel isolated PRO polypeptides preparation of a medicament for polypeptide, and as therapeutic
 Example
                                                                                                                                                                                                 (GETH
                                                                                         2003-585292/55
                                                                                                                   KP, Botstein D, Desnoyers L, Eaton DL, Ferrara N, Fong S;
Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Paoni NF, Roy MA, Smith V, Stewart TA, Tumas D, Watanabe and PM, Wood WI;
                                                                                                                                                                                                 _
 93;
                                                                                                                                                                                                 GENENTECH
Page
                                                                                                                                                                                                                            98US-0106934P.
98US-0108779P.
98US-0108779P.
98US-0108779P.
98US-0108802P.
98US-0108802P.
98US-0108863P.
98US-0108849P.
98US-0108852P.
98US-0111296P.
98US-011223P.
99US-01281711.
99US-01281711.
99US-01281711.
99US-0128172.
2000WC-US00304P.
99US-0144758P.
99US-0144758P.
99US-0144758P.
99US-01288291.
199US-01288291.
199US-0130095.
2000WC-US003165.
2000WC-US003365.
2000WC-US003565.
2000WC-US003565.
2000WC-US003566.
2001WC-US003566.
2001WC-US003563.
2001WC-US003563.
2001WS-0882636.
2001WS-0882636.
2001WS-0882636.
2001WS-0882636.
2001WS-0882636.
2001WS-0882636.
263; 561pp; English.
                                                                                                                                                                                                 INC.
                           e.g. PRO1491 and PRO1571, useful treating a condition responsive tagents e.g. vaccines.
                                          to
                                                n the
```

CK;

17-SEP-1998
17-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
23-SEP-1998
24-SEP-1998
25-CCT-1998
30-SEP-1998
30-SEP

98US-0100711P
98US-0100930P
98US-0100930P
98US-01010014P
98US-0101071P
98US-0101071P
98US-0101071P
98US-01011477P
98US-01011474P
98US-0101147

PR 23-SEP PR 24-SEP PR 26-OCIT PR 06-OCIT PR 06-OCIT PR 06-OCIT PR 26-OCIT		NACCHET 156 NACCHEST Standard; DNA; 23 BP. XX XX XX XX XX XX XX XX XX	XX The invention describes an isolated PRO (secreted and transmembrane) CC polypeptide (I), having at least 80% sequence identity to a sequence CC selected from any one of the 123 amino acid sequences given in Query Match Best Local Similarity 85.0%; Pred. No. 2.6e+02; Matches 17; Conservative 0; Mismatches 3; Indels 0; Gaps 0; Qy 669 CTGAAGCTCACAGATGGATC 688 Qy 669 CTGAAGCTGCCAGATGGCTC 22
	100 100 100 100 100 100 100 100 100 100	24-SEP 29-SEP 29-SEP 29-SEP 29-SEP 29-SEP 29-SEP 30-SEP 30	18-SEP-22-SEP-23-SEP-23-SEP-23-SEP-23-SEP-23-SEP-23-SEP-24

Page 151

```
16-APAN-1999
16-APAN-1999
23-JUN-1999
20-JUL-1999
20-JUL-1999
11-SEP-1999
11-SEP-1999
30-NOV-1999
30-NOV-1999
30-NOV-1999
16-DEC-1999
16-DEC-1990
11-FEB-2000
11-FEB-2000
11-FEB-2000
12-NAX-2000
15-NAX-2000
10-NOV-2000
11-DEC-2000
The invention relates to human PRO polypeptides and the polynucleotides encoding them. The sequences are useful in the preparation of a medicament for treating a condition responsive to a PRO polypeptide. The polypeptides are useful in a number of functional biological assays, as molecular weight markers for protein electrophoresis and as therapeutic agents. The polynucleotides are useful as hybridisation probes for a cDN
                                                                                                                                                                                                                                                                                                                                                          Gao W, G
Pan J, F
Williams
                                                                                                                                                                                                            Novel isolated PRO polypeptides e.g. PRO1491 and PRO1571, useful in the preparation of a medicament for treating a condition responsive to PRO polypeptide, and as therapeutic agents e.g. vaccines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-NOV-1998;
18-NOV-1998;
                                                                                                                                                                    Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-NOV-1998;
18-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-NOV-1998;
17-NOV-1998;
18-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                       r KP, Botstein D,
W, Goddard A, Godd
J, Paoni NF, Roy N
iams PM, Wood WI;
                                                                                                                                                                                                                                                                                                           2003-555602/52
                                                                                                                                                                 93; SEQ ID NO 318; 555pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0108802P

98US-0108807P

98US-0108807P

98US-0108867P

98US-0108849P

98US-0108849P

98US-0108852P

98US-0108852P

98US-0108852P

98US-0108852P

98US-0114223P

98US-0114223P

99US-011423P

99US-014758P

99US
                                                                                                                                                                                                                                                                                                                                                                           D, Desnoyers L, Eaton DL, I
Godowski PJ, Grimaldi JC, Gu
Roy MA, Smith V, Stewart TA,
                                                                                                                                                                                                                                                                                                                                                                              , Ferrara N,
Gurney AL,
TA, Tumas D,
                                                                                                                                                                                                                                                                                                                                                                              , Fong S;
Hillan KJ;
, Watanabe C
                                                                                                                                                                                                                                                                                                                                                                                CK.
```

Query Match Best Local

Similarity

. 0%;

Score Pred.

15.2; No. 2.

DB 1; .6e+02;

Length

```
RESULT 157
ADD70833
ID WD70833
ID WD7083
ID WD7083
ID WD7083
IN WW Umman;
KW U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
17-SEP-1998;
17-SEP-1998;
17-SEP-1998;
17-SEP-1998;
17-SEP-1998;
18-SEP-1998;
18-SEP-1998;
18-SEP-1998;
18-SEP-1998;
18-SEP-1998;
23-SEP-1998;
                                                                                                                                                                                                                                                                                                        10-SEP-1998
10-SEP-1998
10-SEP-1998
10-SEP-1998
110-SEP-1998
15-SEP-1998
15-SEP-1998
16-SEP-1998
16-SEP-1998
16-SEP-1998
                                                                                                                                                                                                                                               16-SEP-1998;
16-SEP-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-SEP-1998;
01-SEP-1998;
01-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumou immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003099625-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADD70833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    secreted/transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001US-00015386
98US-0099741P
98US-0099754P
98US-0099763P
98US-0099763P
98US-0099815P
98US-0099815P
98US-0100385P
98US-0100385P
98US-0100584P
98US-0100661P
98US-0100662P
98US-0100664P
98US-0100664P
98US-0100664P
98US-0100664P
98US-0100664P
98US-0100664P
98US-0100664P
98US-0100664P
98US-0100664P
98US-010071P
98US-010071P
98US-010064P
98US-0100848P
98US-0101048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0099598P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0099596P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0098821P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRO1563 PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tumour;
```

Fri

· Ten I

History To Po Se o Pose

```
Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                         17-NOV-1998;
18-NOV-1998;
18-NOV-1999;
15-SEP-1999;
23-JUN-1999;
23-JUN-1999;
23-JUN-1999;
23-JUN-1999;
21-EEP-1999;
21-EE
                                                                                                                                                                                                                                                       Baker KP, Botstein I
Gao W, Goddard A, (
Pan J, Paoni NF, Ro
Williams PM, Wood W
                                                                                                                                                   Novel isolated PRO polypeptides e.g., PRO1130, PRO1275, PRO1418, PRO1555, PRO1787 affect glucose or free fatty acid (FFA) uptake by skeletal muscle cells and are useful for treating diabetes or hyper- or hypo-insulinemia
                                                                   The invention transmembrane
                                                                                                                  Example
                                                                                                                                                                                                                         2003-874602/81.
                                                                                                                                                                                                                                                                                                                                            _
ch 1.8%;
l Similarity 85.0%;
17; Conservative
                                                                                                                      93;
                                                                                                                                                                                                                                                                                                                                            GENENTECH
                                                                                                                                                                                                                                                                                                                                                                           98US-0108867P

98US-0108849P

98US-0108849P

98US-0108855P

98US-0108855P

98US-0108852P

98US-0108967P

98US-0114223P

98US-0114723P

99US-0144758

99US-0144758

99US-0144758

99US-0144758

99US-0144758

99US-01475698P

99US-01475698P

99US-01475698P

99US-01475698P

99US-01475698P

99US-01502201111

99WO-US02211194

2000WO-US023313

99WO-US023313

2000WO-US003365

2000WO-US003565

2000WO-US013705

2000WO-US013705

2000WO-US0136666

2001WO-US0136520

2001WO-US0136520

2001WO-US0136666

2001WO-US0136666

2001WO-US01780

2001WO-US01780

2001WO-US01780

2001WO-US01780

2001WO-US01780

2001WO-US01780

2001WO-US01780

2001WO-US01780

2001WO-US01787
                                                                                                                    SEQ
                                                                 relates to an isolated PRO polypeptide protein) having at least 80% amino acid
                                                                                                                      ij
                                                                                                                                                                                                                                                                                                                                          INC.
                                                                                                                                                                                                                                                          in D, Desnoyers I, Godowski PJ, (Roy MA, Smith Name)
                                                                                                                      Ö
                                                                                                                      318;
                                                                                                                  553pp; English.
   Score 15.2; DB 1;
Pred. No. 2.6e+02;
); Mismatches 3;
                                                                                                                                                                                                                                                                         s L, Eaton DL, F
Grimaldi JC, Gu
h V, Stewart TA,
                                                                                                                                                                                                                                                                           , Ferrara N,
Gurney AL,
TA, Tumas D,
                                Length
                                                                   (secreted d sequence
                                      23;
                                                                                                                                                                                                                                                                              , Fong S;
Hillan KJ;
, Watanabe (
                                                                      identity
```

밁 8

669

CTGAAGCTCACAGATGGATC CTGAAGCTGCCAGATGGCTC

688 22

0,

Indels

0

Gaps

0

CK;

e

23-SEP-1998;
23-SEP-1998;
23-SEP-1998;
23-SEP-1998;
24-SEP-1998;
24-SEP-1998;
24-SEP-1998;
29-SEP-1998;
29-SEP-1998;
29-SEP-1998;
29-SEP-1998;
30-SEP-1998;
30-CCT-1998;
30-CC

98US-0101472P.
98US-0101477P.
98US-0101477P.
98US-0101477P.
98US-0101477P.
98US-0101743P.
98US-0101743P.
98US-0101743P.
98US-0101743P.
98US-010191EP.
98US-0102207P.
98US-0102207P.
98US-010233P.
98US-0102487P.
98US-0102687P.
98US-0102687P.
98US-0102687P.
98US-0102687P.
98US-010331EP.
98US-0102687P.
98US-010331P.
98US-0105693P.
98US-0105693P.
98US-0105693P.
98US-010693P.
98US-01089P.

```
RESULT 158
                                                                                                                                                                                                                                                                                                                                                                22-MAY-2000;
30-MAY-2000;
02-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-JAN-2000;
11-FEB-2000;
18-FEB-2000;
The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80% amino acid sequence identity to an amino acid sequence chosen from 123 fully defined sequences as
                                                                   New secreted and transmembrane PRO polypeptides useful for treating cancers, kidney disorders, Crohn's disease, diabetes mellitus, hype-insulinemia, sports injuries and arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumous immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                  WPI; 2003-755122/71.
                                                                                                                                                                                                                                                                                                                                                                                                                           24-FEB-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                    15-MAR-2000;
17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003083462-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human secreted/transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADD39910 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -SEP-1999;
                                                                                                                                                              KP, Botstein, Goddard A,
                                                                                                                                                                                                  _
                                                                                                                                         Paoni NF,
s PM, Wood
                                                                                                                                                                                                 GENENTECH INC.
                                              SEQ
                                                                                                                                                                                                                                                                                          99WO-US030095

2000WO-US000376

2000WO-US000376

2000WO-US003565

2000WO-US005004

2000WO-US005841

2000WO-US005841

2000WO-US00684

2000WO-US01404

2000WO-US01404

2000WO-US01404

2000WO-US01404

2000WO-US01404

2000WO-US015264

2000WO-US03578

2000WO-US03578

2000WO-US036520
                                                                                                                                                                                                                                                         2001WO-US006666.
2001WO-US017800.
2001WO-US019692.
                                                                                                                                                                                                                        2001WO-US021066
2001WO-US021735
2001US-00946374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-00013913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US000106.
99WO-US020111.
99WO-US021194.
                                               님
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9WO-US028551
                                                                                                                                          Roy MA,
                                               ö
                                                                                                                                                   D, Desnoyers L, Eaton DL, Ferrara N, Fong S; Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Roy MA, Smith V, Stewart TA, Tumas D, Watanabe CK;
                                              318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23
                                            557pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein PRO1563
                                              English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRO; tumour;
                                                                                 9
```

```
멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 159
ADD70356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cc given in the specification (including their extracellular domains either cc nucleotide (NA) sequences encoding PRO, a vector comprising the PRO NA, a comprising the vector, producing PRO, a chimaeric molecular cell comprising the vector, producing PRO, a chimaeric molecular comprising PRO fused to a heterologous amino acid sequence, and an antice comprising PRO fused to a heterologous amino acid sequence, and an antice comprising PRO fused to a heterologous amino acid sequence, and an antice converted the comprising PRO sector, producing PRO, a chimaeric molecular weight markers for protein comprising PRO antibody. Pro is useful as molecular weight markers for protein converted the converted properties and also for chromosome identification. PRO is also converted for a cDNA library to isolate the full-length PRO cDNA. PRO NA is consecular transgenic animals or knock-out animals which are useful for generating transgenic animals or knock-out animals which are useful in development and screening useful reagents. PRO NA is also useful for treating tumours. PRO1313 polypeptides are useful for treating cardiac insufficiency disorders. CC polypeptide is also useful for treating tumours. PRO1246 and pRO1246 polypeptide is also useful for treating tumours. PRO1246 and completed properties are useful for treating cardiam flux in human conjugations are useful for treating broad pro1474 collippetides are useful for treating broad pro1418 pro1130, pRO1250 and pRO1418 pro1130, pRO1250 and pRO1418, pRO1265, pRO1244 and pRO1382 polypeptides are useful for treating that assemilar or Crohn's collippetides are useful for treating that assemilar the useful for treating that assemilars. The present collipse properties are useful for treating that assemilars. The present collipse properties are useful for pro1418, pro1304, pro1314, pro1314, pro1314, pro1314, pro1314, pro1314,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
01-SEP-1998;
01-SEP-1998;
01-SEP-1998;
01-SEP-1998;
02-SEP-1998;
02-SEP-1998;
02-SEP-1998;
09-SEP-1998;
                                                                                                                                                                                                                                                                                                                                              Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumou immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                     06-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-JAN-2004
                                                                                                                                                                                                                           20-MAR-2003
                                                                                                                                                                                                                                                                    US2003054406-A1
                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human secreted/transmembrane protein PRO1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADD70356 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGAAGCTCACAGATGGATC 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGAAGCTGCCAGATGGCTC 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP; 4 A;
                                                                                                                                                                                     2001US-00006818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                     98US-0098723P.
98US-0098749P.
98US-0098750P.
98US-0098803P.
98US-0098821P.
98US-0098843P.
                                                                                                                                              98US-0098716P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15.2;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .6e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCR primer #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRO; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
```

0,

****** £

98US-0009815P 98US-0009815P 98US-0000662P 98US-0100664P 98US-0100664P 98US-0100664P 98US-0100649P 98US-0100931P 98US-010010931P 98US-010010931P 98US-0101014P 98US-0101014P 98US-0101014P 98US-0101147P 98US-0101147P 98US-0101147P 98US-0101147P 98US-0101147P 98US-0101147P 98US-0101147P 98US-0101147P 98US-0101147P 98US-0101147P 98US-0101147P 98US-0101147P 98US-0101147P 98US-01012331P 98US-010248P 98US-010257P 98US-010331P 98US-010331P 98US-010345P 98US-010368P	98US-0099596P 98US-0099598P 98US-0099602P 98US-0099642P 98US-0099741P 98US-0099754P 98US-0099763P 98US-0099763P 98US-0099812P 98US-0099812P
` ************************************	א א א א א א א א א א א א א א א א א א א
28 OCT 1998 28 OCT 1998 28 OCT 1998 28 OCT 1998 29 OCT 1998 30 OCT 1998 30 OCT 1998 03 NOV 1998 03 NOV 1998 10 NOV 1998 11 NOV 1998 17 NOV 1998 18 NOV 1998 19 NOV 1999 10 DEC 1999 20 JUL 1999 21 JUL 1999 22 JUL 1999 23 JUN 1999 24 JUN 1999 25 JUN 1999 26 JUL 1999 27 JUN 1999 28 JUN 1999 29 JUN 1999 20 JUN 1999 20 JUN 1999 21 JUN 1999 22 JUN 1999 23 JUN 1999 24 JUN 2000 24 PEB 2000 25 JUN 2000 26 JUN 2000 27 MAY 2000 28 JUN 2000 29 JUN 2000 20 JUN 2000 21 JUN 2000 21 JUN 2000 22 JUN 2000 23 JUN 2000 24 JUN 2000 25 JUN 2000 26 JUN 2000 27 MAY 2000 28 JUN 2000 29 JUN 2000 20 JUN 2000 21 JUN 2000 21 JUN 2000 22 JUN 2000 23 JUN 2000 24 JUN 2000 25 JUN 2000 26 JUN 2000 27 MAY 2000 28 JUN 2000 29 JUN 2000 20 JUN 2000 20 JUN 2000 21 JUN 2000 22 JUN 2000 23 JUN 2000 24 JUN 2000 25 JUN 2000 26 JUN 2000 27 JUN 2000 28 JUN 2000 29 JUN 2000 20 JUN 2000 20 JUN 2000 20 JUN 2000 21 JUN 2000 22 JUN 2000 23 JUN 2000 24 JUN 2000 26 JUN 2000 27 JUN 2000 28 JUN 2000 29 JUN 2000 20 JUN 20	22-0CT-1998; 26-0CT-1998; 26-0CT-1998; 26-0CT-1998; 27-0CT-1998; 27-0CT-1998; 27-0CT-1998; 27-0CT-1998; 28-0CT-1998; 28-0CT-1998;
98US-0106032P 98US-0106032P 98US-0106032P 98US-0106248P 98US-0106384P 98US-0106384P 98US-0106902P 98US-0106919P 98US-0106919P 98US-0106919P 98US-0106919P 98US-0106919P 98US-0108919P 98US-0108919P 98US-010878PP 98US-010878PP 98US-010878PP 98US-010885PP 99US-0140885PP 99US-010885	

09-SEP-1998 09-SEP-1998 10-SEP-1998 110-SEP-1998 110-S

```
RESULT 160
ADD38477
  멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local :
01-SEP-1998
01-SEP-1998
01-SEP-1998
02-SEP-1998
02-SEP-1998
02-SEP-1998
09-SEP-1998
09-SEP-1998
09-SEP-1998
09-SEP-1998
09-SEP-1998
09-SEP-1998
09-SEP-1998
09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUN-2001;
20-JUN-2001;
29-JUN-2001;
09-JUL-2001;
04-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Baker KP,
Gao W, G
Pan J, P
Williams
                                                                                                                                                                                                                                                                                                           Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumous immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obseity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel isolated PRO polypeptide useful for tissue typing, modulating biological activity of cell, as molecular weight markers in protein electrophoresis, for treating arthritis, tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADD38477
                                                                                                                                                                                                           07-DEC-2001; 2001US-00012755
                                                                                                                                                                                                                                                             US2003096955-A1
                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                        Human
                                                                                                                                                                                                                                                                                                                                                                                                                                  15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to an isolated PRO polypeptide (secreted transmembrane protein) having at least 80\% amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 93; SEQ ID NO 318; 549pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-708344/67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              669
                                                                                                                                                                                                                                                                                                                                                                                                        secreted/transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KP, Botstein D, Desnoyers L, Eaton DL, Ferrara N,
Goddard A, Godowski PJ, Grimaldi JC, Gurney AL,
Paoni NF, Roy MA, Smith V, Stewart TA, Tumas D,
ams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGAAGCTGCCAGATGGCTC 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGAAGCTCACAGATGGATC 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; 2001WO-US017800.
; 2001WO-US019692.
; 2001WO-US021066.
; 2001WO-US021735.
; 2001US-00946374.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
98US-0098716P

98US-009873P

98US-009873P

98US-0098750P

98US-009881P

98US-009881P

98US-0098843P

98US-0098843P

98US-0099596P

98US-0099544P

98US-0099741P

98US-0099754P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.8%;
85.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 15.2;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                      protein PRO1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .6e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                        PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;, Fong S;
Hillan KJ;
Watanabe CK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                               PRO; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or
identity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
  18-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
23-SEP-1998
24-SEP-1998
25-SEP-1998
26-OCT-1998
30-SEP-1998
30-SEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-SEP 1998
10-SEP 1998
10-SEP 1998
10-SEP 1998
15-SEP 1998
15-SEP 1998
16-SEP 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-SEP-1998;
17-SEP-1998;
17-SEP-1998;
 98US-0099792P
98US-0099815P
98US-0099815P
98US-0100385P
98US-0100386P
98US-0100662P
98US-0100662P
98US-0100663P
98US-0100663P
98US-0100663P
98US-0100663P
98US-0100711P
98US-0100711P
98US-0101071P
98US-010101472P
98US-0101477P
98US-0101231P
98US-0101231P
98US-0101231P
98US-0101231P
98US-010331P
98US-0103568P
98US-010569P
98US-010569P
98US-010569P
98US-010589P
98US-010589P
98US-010589P
98US-010589P
98US-010589P
98US-010589P
98US-010589P
98US-010589P
98US-010589P
```

0,

28-OCT-1998;
28-OCT-1998;
28-OCT-1998;
28-OCT-1998;
28-OCT-1998;
29-OCT-1998;
29-OCT-1998;
29-OCT-1998;
30-OCT-1998;
30-OCT-1998;
31-NOV-1999;
31-NOV-1999;
31-NOV-1999;
31-NOV-1999;
31-NOV-1999;
31-NOV-1998;
31-NOV-1999;
31-NO GENENTECH 99WO-US030095
2000WO-US000316
2000WO-US0003565
2000WO-US004342
2000WO-US0050841
2000WO-US0150884
2000WO-US013705
2000WO-US013705
2000WO-US0152441
2000WO-US015252
2000WO-US015264
2000WO-US015264
2000WO-US01526666
2001WO-US01529
2001WO-US01529
2001WO-US019692
2001WO-US019692
2001WO-US0196374
2001WO-US0196373 98US-0106023P 98US-0106023P 98US-0106032P 98US-0106032P 98US-0106248P 98US-0106369 98US-0106369 98US-0106902P 98US-0106902P 98US-0106932P 98US-0106932P 98US-0106932P 98US-0106978P 98US-0106978P 98US-0108779P 98US-0108779P 98US-0108779P 98US-0108807P 98US-0108867P 98US-0108867P 98US-0108858P 98US-0118858P 99US-0144758P 99US-0144758P 99US-0145698P 99US-0145698P 99US-0145698P 99US-0145698P 99US-0145698P 99US-0145698P 99US-0145698P

```
98US-0110390P

98US-0110661P

98US-0110664P

98US-0110664P

98US-01100683P

98US-0110091P

98US-0110091P

98US-01100930P

98US-01101014P

98US-01101014P

98US-01101477P

98US-01101477P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101268P

98US-0101477P

98US-0101477P

98US-0101477P

98US-0101279P

98US-010228P

98US-010331P

98US-010331P

98US-010368P

98US-010560P

98US-010569P

98US-0106029P

98US-0106029P

98US-0106033P

98US-0106033P
   29-OCT-1998
29-OCT-1998
30-OCT-1998
30-OCT-1998
30-OCT-1998
03-NOV-1998
10-NOV-1998
11-NOV-1998
11-NOV-1999
11-SEP-1999
11-SEP-1999
11-SEP-1999
11-SEP-1999
11-DEC-1999
11-DEC-1990
11-DEC
                                  Baker KP,
Gao W, G
Pan J, P
Williams
                                                                                                                         (GETH
                                  KP, Botstein
, Goddard A,
, Paoni NF, R
, Paoni NF, R
                                                                                                                         _
                                                                                                                         GENENTECH
                                                                                                                                                           98US-0106248P

98US-0106304P

98US-0106464P

98US-0106905P

98US-0106905P

98US-0106934P

98US-0106934P

98US-0106934P

98US-0106934P

98US-0108934P

98US-0108934P

98US-0108801P

98US-0108801P

98US-0108802P

98US-010886P

98US-010885P

98US-010885P

98US-010885P

98US-010885P

98US-010885P

98US-010885P

99US-010885P

99
                                                                                                                         INC.
                                    n D, Desno
Godowski
Roy MA, S
WI;
                                                   Desnoyers L, Eaton DL,
owski PJ, Grimaldi JC, G
MA, Smith V, Stewart TA,
                                                   Gurney AL,
GA, Tumas D,
                                                     , Fong S;
Hillan KJ;
, Watanabe C
```

WPI; 2003-786999/74.

CK.

15-SEP 1998
16-SEP 1998
16-SEP 1998
16-SEP 1998
17-SEP 1998
18-SEP 1998
18-SEP 1998
18-SEP 1998
23-SEP 1998
23-SEP

Ś

مر ہے بر آفو

```
RESULT 162
ADD3896
ADD3899
XX ADD389
XX ADD389
XX Homan
DT 15-JAN
XX Human
XX Human
XX Human
XX Homo s
XX Germat
XX 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCXXXXPPPX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Ma
Best Loc
Matches
  01-SEP-1998
01-SEP-1998
01-SEP-1998
01-SEP-1998
02-SEP-1998
02-SEP-1998
09-SEP-1998
09-SEP-1998
10-SEP-1998
10-SEP-1998
11-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumou: immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel isolated PRO polypeptide useful for tissue typing, biological activity of cell, as molecular weight markers electrophoresis, for treating arthritis, tumor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2003092061-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADD38956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                669 CTGAAGCTCACAGATGGATC 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       secreted/transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity 85.0
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93; SEQ ID NO 318; 550pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGAAGCTGCCAGATGGCTC 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-00007194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            relates to an isolated PRO polypeptide protein) having at least 80% amino acid
  98US-0098716P

98US-0098749P

98US-0098750P

98US-0098821P

98US-0098821P

98US-0099536P

98US-0099536P

98US-0099542P

98US-0099741P

98US-0099741P

98US-0099754P

98US-0099754P

98US-0099754P

98US-0099754P

98US-0099754P

98US-0099754P

98US-0099754P

98US-0099754P

98US-0099816P

98US-0100388P

98US-0100388P

98US-0100388P

98US-0100661P

98US-0100661P

98US-0100664P

98US-0100664P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Score 15.2; DI
; Pred. No. 2.6e-
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein PRO1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1; L.
2.6e+02;
3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                modulating
in protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or
identity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
  17-SEP 1998
17-SEP 1998
17-SEP 1998
18-SEP 1998
18-SEP 1998
18-SEP 1998
18-SEP 1998
23-SEP 1998
23-SEP
98US-0110930P-
98US-01101014P-
98US-01101014P-
98US-0110171P-
98US-01101477P-
98US-0111477P-
98US-0111477P-
98US-0111477P-
98US-0111477P-
98US-0111741P-
98US-0111741P-
98US-01101916P-
98US-0110244P-
98US-0110231P-
98US-0110257P-
98US-0110257P-
98US-0110331P-
98US-0110349P-
98US-0110326P-
98US-0110526P-
98US-0110526P-
98US-0110526P-
98US-0110526P-
98US-0110526P-
98US-0110526P-
98US-0110526P-
98US-01106033P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0100684P.
98US-0100710P.
98US-0100711P.
98US-0100919P.
```

0

```
30-DEC-1998
16-APR-1999
16-APR-1999
23-JUN-1999
26-JUL-1999
16-SEP-1999
17-SEP-1999
29-OCT-1999
29-OCT-1999
29-OCT-1999
30-NOV-1999
30-NOV-1999
30-NOV-1999
16-DEC-1999
16-DEC-1999
16-JAN-2000
18-FEB-2000
11-FEB-2000
11-FEB-2000
11-FAA-2000
11-MAY-2000
22-MAY-2000
23-MAY-2000
24-AUG-2000
24-AUG-2000
25-JAN-2000
15-MAX-2000
16-DEC-2000
27-MAY-2000
21-MAY-2000
21-JEC-2000
21-JEC-2000
21-JEC-2000
21-JEC-2000
21-JUN-2001
                                                                                                                                            Gao W, G
Pan J, P
Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
22-DEC-1998;
                                         New isolated PRO polypeptide such as PRO1560, PRO444, PRO1018, PRO1773, PRO1244, PRO1246, useful for treating cancerous tumors, cardiac insufficiency disorders, wound healing, Crohn's disease, celiac disease.
               Example 93; SEQ ID NO 318; 555pp; English
                                                                                                               WPI; 2003-765477/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -NOV-1998;
                                                                                                                                         Goddard A,
, Paoni NF,
ams PM, Wood
                                                                                                                                                                                             \.
\.
                                                                                                                                                                                                                            ) GENENTECH INC.
                                                                                                                                                                             Botstein D,  Desn
ldard A,  Godowski
                                                                                                                                                                                                                                                        98US-0106934P

98US-0106934P

98US-0106934P

98US-0108778P

98US-010878PP

98US-0108808P

98US-0108808P

98US-0108808P

98US-0108808P

98US-0108808P

98US-0108808P

98US-0108852P

98US-0108852P

98US-0108852P

98US-0108852P

98US-0108852P

98US-0108852P

98US-0108852P

99US-0114223

99US-0114223

99US-0114223

99US-0108852P

99US-0114223

99US-011423

99US-0116852P

99US-011423

99US-0116852P

99US-016852P

99US-0168652P

99US-016852P

99US-016852P

99US-016852P

99US-0168652P

99US-01
                                                                                                                                              ROY MA,
                                                                                                                                                            Desnoyers L, Eaton DL, Ferrara N,
owski PJ, Grimaldi JC, Gurney AL,
MA, Smith V, Stewart TA, Tumas D,
                                                                                                                                                            , Fong S;
Hillan KJ;
Watanabe CK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
```

```
RESULT 163
ADD40387
ID ADD40387
XX ADD4031
XX ADD4031
XX ADD4032
XX ADD4032
XX ADD4032
XX ADD4032
XX Human;
XX Human;
XX Human;
XX Inmunc
XX Inmun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-SEP-1998
01-SEP-1998
01-SEP-1998
01-SEP-1998
02-SEP-1998
02-SEP-1998
02-SEP-1998
09-SEP-1998
                                                                                                         10-SEP 1998
10-SEP 1998
10-SEP 1998
15-SEP 1998
15-SEP 1998
16-SEP 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumou immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis, wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to an isolated PRO polypeptide (secreted or transmembrane protein) having at least 80\% amino acid sequence identity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US2003082627-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human secreted/transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADD40387;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADD40387
                                                                                                                                                                                                                                                                                                                                                                                                                      10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 85.0 les 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              669 CTGAAGCTCACAGATGGATC 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGAAGCTGCCAGATGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00006117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
98US-0098716

98US-00987492

98US-00987502

98US-00987502

98US-00987502

98US-00995962

98US-00995962

98US-00995982

98US-00997542

98US-00997542

98US-00997542

98US-00997542

98US-00997542

98US-00998152

98US-01003852

98US-01003852

98US-01005842

98US-01006612

98US-01006632

98US-010066342

98US-010066342

98US-010066342

98US-010068342

98US-01007112

98US-01007112

98US-01007112

98US-01009482

98US-01009482

98US-01009482

98US-01009482

98US-01009482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          o
;-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 15.2; DB 1;
Pred. No. 2.6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein PRO1563 PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRO; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
```

```
Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                    Baker KP, Botstein I
Gao W, Goddard A, (
Pan J, Paoni NF, Ro
Williams PM, Wood W
                                                                                                                                                                                                                                                                                                                                               17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
17-NOV-1998;
18-NOV-1998;
18-NOV-1999;
16-APR-1999;
16-AP
                                                            The invention transmembrane
                                                                                                                                      New isolated PRO polypeptides PRO1244, PRO1246, are useful finsufficiency disorders.
                                                                                                           Example
                                                                                                                                                                                                                                                                                                                   (GETH
                                                                                                                                                                                                       2003-755104/71
                                                                                                                                                                                                                                                                                                                   ~
ch
1 Similarity 85.0
17; Conservative
                                                                                                           93;
                                                                                                                                                                                                                                                                                                                   GENENTECH
                                                                                                           SEQ
                                                                                                                                                                                                                                                                                                                                               98US-0108788P

98US-0108801P

98US-0108806P

98US-0108867P

98US-0108849P

98US-0108851P

98US-0108851P

98US-0108852P

98US-0108852P

98US-0108852P

98US-0108852P

98US-0113296P

98US-011423P

99US-0144758P

99US-014578P

99US-014578P

99US-014578P

99US-014578P

99US-0150251194

99US-0150251194

99US-0150251194

99US-0150251194

99US-0150253119

99US-015030573

2000WO-US003786

2000WO-US0038673

2000WO-US0038673

2000WO-US00386866

2001WO-US01786666

2001WO-US017356
                                                          relates
protein)
                                                                                                           IJ
                                                                                                                                                                                                                                                                                                                   INC.
                                                                                                                                                                                                                                      Roy
                                                                                                           NO
                                                                                                                                                                                                                                                   D, Desnoyers L, Eaton DL, Ferrara N,
Godowski PJ, Grimaldi JC, Gurney AL,
Roy MA, Smith V, Stewart TA, Tumas D,
                                                            to an isolated PRO polypeptide
) having at least 80% amino acio
                                                                                                           318;
               0 8
                                                                                                        550pp; English.
Score 15.2; DB 1;
Pred. No. 2.6e+02;
0; Mismatches 3
                                                                                                                                                        such as PRO1560, PRO444, PRO1018, PRO1773, for treating cancerous tumors and cardiac
                               1;
                              Length
                                                               acid
                                                            e (secreted
d sequence
                                   23;
                                                                                                                                                                                                                                                      , Fong S;
Hillan KJ;
, Watanabe C
```

18-SEP-1998
18-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
23-SEP-1998
24-SEP-1998
24-SEP-1998
24-SEP-1998
24-SEP-1998
24-SEP-1998
29-SEP-1998
20-SEP-1998
20-SEP

98US-0101014P
98US-010101P
98US-0101279P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101477P
98US-0101479P
98US-0101773P
98US-0101773P
98US-0102330P
98US-0102570P
98US-0102570P
98US-0103258P
98US-0103258P
98US-0103315P
98US-0103315P
98US-0103315P
98US-0103315P
98US-0103315P
98US-0103684P
98US-0103315P
98US-0103684P
98US-0103684P
98US-0103684P
98US-0103698P
98US-0103698P
98US-0103698P
98US-0106033P

T-1998; T-1998; T-1998; T-1998; T-1998;

Indels

0

Gaps

0

or identity

CK;

RESULT ADBSOGO ADSOGO A	로 성
164 8 8 6 10AN - 200 10AN	669 CTGAAG
rd; DNA; 23 BP. rrd; DNA; 23 BP. rrd; entry) transmembrane pr mer; secreted pr cardiac insuff conditac insuff healing; diabe nephropathy; Sc psUS-0098743P 98US-0098750P 98US-0098821P 98US-0099815P 98US-0099815P 98US-0099815P 98US-0099815P 98US-0099815P 98US-0099815P 98US-0100388P 98US-0100664P	TGAAGCTCACAGATGGATC 688
**************************************	טי אמי אמי
23-SEP-1998 24-SEP-1998 24-SEP-1998 24-SEP-1998 24-SEP-1998 29-SEP-1998 29-SEP-1998 29-SEP-1998 29-SEP-1998 29-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-SEP-1998 30-OCT-1998 30-OCT-1998 30-OCT-1998 20-OC	.199 .199
98US-0101479P. 98US-0101741P. 98US-0101741P. 98US-0101741P. 98US-0101916P. 98US-0102207P. 98US-0102207P. 98US-0102230P. 98US-01022330P. 98US-0102244P. 98US-01022487P. 98US-0102570P. 98US-0102587P. 98US-0102587P. 98US-01033258P. 98US-0105882P. 98US-0105882P. 98US-0105882P. 98US-0106238P. 98US-010633P. 98US-010633P. 98US-010633P. 98US-010638P. 98US-0108805P. 98US-0108807P.	US-0101475 US-0101476 US-0101477

م فعد د

*

```
Query
Best L
                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
18-NOV-1998;
22-DEC-1998;
30-DEC-1999;
16-APR-1999;
21-JUN-1999;
21-SEP-1999;
21-JUN-2000;
21-FEB-2000;
21-FEB-2000;
21-FEB-2000;
21-SEP-1900;
21-SE
                                                                                                                                                                                                                                                                                                                                                            Baker KP,
Gao W, G
Pan J, P
Williams
                                                                                                                                                                                                                                                             Novel secreted and transmembrane PRO polypeptides useful in the preparation of a medicament for treating a condition responsive polypeptide and as therapeutic agents e.g. vaccines.
                                                                                                                                                                                    The invention transmembrane
                                                                                                                                                                                                                                  Example
                                                                                                                                      Local
                                                                                                                                                     Match
                                                                                                                                                                                                                                                                                                                                 2003-708395/67.
                                                                                        669
                                                                                                                                                                                                                                                                                                                                                           KP, Botstein D, Desnoyers
, Goddard A, Godowski PJ,
, Paoni NF, Roy MA, Smith
ams PM, Wood WI;
                                                                                                                     Similarity
17; Conserv
                                                         ω
                                                                                                                                                                                                                                                                                                                                                                                                                                             GENENTECH INC.
                                                                                                                                                                                                                                93; SEQ ID
                                                                                      CTGAAGCTCACAGATGGATC
                                                         CTGAAGCTGCCAGATGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000WO-US003376
2000WO-US003376
2000WO-US003367
2000WO-US005841
2000WO-US0058841
2000WO-US006884
2000WO-US014041
2000WO-US014941
2000WO-US014941
2000WO-US014941
2000WO-US013262
2000WO-US033287
2000WO-US033287
2000WO-US033678
2000WO-US033678
2001WO-US031666
2001WO-US017800
2001WO-US01780
2001WO-US01780
2001WO-US01780
2001WO-US01780
2001WO-US01780
2001WO-US01780
2001WO-US01780
2001WO-US01780
                                                                                                                       Conservative
                                                                                                                                                                                 n relates t
protein)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0108848P

98US-0108850P

98US-0108851P

98US-0108858P

98US-0108858P

98US-0108858P

98US-01182904P

98US-0113296

98US-0113296

99US-0141037P

99US-0141037P

99US-0144758P

99US-0144758P

99US-0145758P

99US-0145758P

99US-0145758P

99US-0145758P

99US-015506P

99US-015506P

99WS-US02111

99WS-US021313

99WS-US021313
                                                                                                                                                                                                                                  NO 318; 555pp; English.
                                                                                                                                   1.8%;
                                                                                                                                                                                 to an ison) having
                                                                                                                                                                                    an isolated PRO polypeptide
aving at least 80% amino acid
                                                                                                                       0
                                                                                                                                      Score 15.2;
Pred. No. 2.
                                                         22
                                                                                        889
                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                            L, Eaton DL, Ferrara N, Grimaldi JC, Gurney AL, V, Stewart TA, Tumas D,
                                                                                                                                      .6e+02;
                                                                                                                                                       DB 1;
                                                                                                                                                    Length
                                                                                                                                                                                    tide (secreted acid sequence
                                                                                                                       Indels
                                                                                                                                                       23;
                                                                                                                                                                                                                                                                                                                                                                              , Fong S;
Hillan KJ;
, Watanabe CK;
                                                                                                                       0
                                                                                                                                                                                      or
identity
                                                                                                                                                                                                                                                                                   ť
                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                     PRO
                                                                                                                        0
US2003092883-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADE20220 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens.
```

```
(first
```

DNA; 23

ВP

secreted/transmembrane protein PRO1563 PCR primer

Human; PCR; primer; secreted protein; transmembrane protein; PRO; the immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease dermatitis; herpetiformis; Crohn's disease; thalassaemia; disease; tumour;

01-SEP-1998 01-SEP-1998 01-SEP-1998 02-SEP-1998 02-SEP-1998 02-SEP-1998 09-SEP-1998 09-SEP-1998 10-SEP-1998 11-SEP-1998 12-SEP-1998 13-SEP-1998 2001US-00013430 98US-0098749P 98US-0098803P 98US-0098803P 98US-0099842P 98US-0099544P 98US-0099754P 98US-0099754P 98US-0099754P 98US-0099754P 98US-0099753P 98US-0099753P 98US-0099816P 98US-0099816P 98US-0100385P 98US-0100385P 98US-0100584P 98US-0100664P 98US-0100664P 98US-0100664P 98US-0100664P 98US-0100664P 98US-0100664P 98US-010071P 98US-010071P 98US-010071P 98US-010044P 98US-0101477P 98US-0101477P

밁 Š

24-SEP 1998 29-SEP 1998 29-SEP 1998 29-SEP 1998 29-SEP 1998 30-SEP 1998 30-COTT 1998

```
RESULT 166
ADE50131
ID ADE501
XX
AC ADE501
XX
AC ADE501
XX
DT 29-JAN
XX
DT 19-JAN
XX
Human
                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-DEC-1998

30-DEC-1998

30-DEC-1999

21-JRN-1999

20-JUL-1999

20-JUL-1999

20-JUL-1999

15-SEP-1999

15-SEP-1999

15-DEC-1999

30-NOV-1999

30-DEC-1999

16-DEC-1999

16-DEC-1999

17-PEB-2000

11-FEB-2000

11-FEB-2000

11-FEB-2000

11-FEB-2000

11-FEB-2000

11-FEB-2000

11-FEB-2000

11-MAY-2000

12-MAY-2000

12-MAY-2000

13-MAY-2000

14-PEB-2000

15-MAY-2000

15-MAY-2000

16-NOV-2000

10-NAY-2000

11-DEC-2000

11-DEC-2000

11-DEC-2000

11-NAR-2000

11-NA
Human secreted/transmembrane protein PRO1563 PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated PRO polypeptide useful for tissue typing, modulating biological activity of cell, as molecular weight markers in protein electrophoresis, for treating arthritis and tumors.
                                          29-JAN-2004 (first entry)
                                                                                       ADES0131;
                                                                                                                             ADE50131 standard;
                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to an isolated PRO polypeptide (secreted transmembrane protein) having at least 80% amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baker KP, Botstein D, Desnoyers L, Eaton DL, Ferrara N, Fong S; Gao W, Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ; Pan J, Paoni NF, Roy MA, Smith V, Stewart TA, Tumas D, Watanabe CK; Williams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 93; SEQ ID NO 318; 555pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GETH )
                                                                                                                                                                                                                                                                            669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2003-765493/72.
                                                                                                                                                                                                                                                                                                                    ch 1.8%; l Similarity 85.0%; 17; Conservative
                                                                                                                                                                                                                                      w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENENTECH INC.
                                                                                                                                                                                                                                                              CTGAAGCTCACAGATGGATC 688
                                                                                                                                                                                                                                      CTGAAGCTGCCAGATGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0113296P

98US-011423P

99US-012000106

99US-0144758P

99US-0144758P

99US-01425698P

99US-0162506P

2000WO-US003365

2000WO-US004342

2000WO-US004342

2000WO-US004342

2000WO-US004342

2000WO-US004342

2000WO-US004342

2000WO-US004342

2000WO-US004342

2000WO-US005841

2000WO-US004342

2000WO-US004342

2000WO-US004342

2000WO-US004342

2000WO-US0132673

2000WO-US0132673

2001WO-US01786

2001WO-US01786

2001WO-US01786

2001WO-US01786

2001WO-US01787

2001WO-US01787

2001WO-US01787
                                                                                                                               DNA;
                                                                                                                             23
                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                    Score 15.2; DB 1;
Pred. No. 2.6e+02;
0; Mismatches
                                                                                                                                                                                                                                      22
                                                                                                                                                                                                                                                                                                                                                                 DB 1;
    primer #1.
                                                                                                                                                                                                                                                                                                                                                        Length 23;
                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                     l or identity
                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                      0
```

\(\text{\text{\$\

26-OCT-1998; 27-OCT-1998; 27-OCT-1998; 27-OCT-1998; 27-OCT-1998;

98US-0101915P
98US-0102207P
98US-0102207P
98US-0102207P
98US-0102207P
98US-01022331P
98US-0102331P
98US-0102571P
98US-0102684P
98US-0102684P
98US-0102687P
98US-0103258P
98US-0103315P
98US-0103315P
98US-0103315P
98US-0103315P
98US-0103315P
98US-0103315P
98US-0103315P
98US-0103315P
98US-0103678P
98US-0103678P
98US-0103678P
98US-0103638P
98US-010602P
98US-010602P
98US-010602P
98US-010603P
98US-010603P
98US-010603P
98US-010603P
98US-010603P
98US-010603P
98US-010603P
98US-010603P
98US-010603P
98US-010694P
98US-010694P
98US-010694P
98US-010884P

08-OCT-1998; 14-OCT-1998; 20-OCT-1998;

28-0CT-1998; 28-0CT-1998; 28-0CT-1998; 28-0CT-1998; 28-0CT-1998; 28-0CT-1998; 29-0CT-1998; 29-0CT-1998; 30-0CT-1998; 30-0CT-1998;

17-NOV-1998; 17-NOV-1998; 17-NOV-1998; 17-NOV-1998; 17-NOV-1998; 17-NOV-1999; 17-NOV-1999; 18-NOV-1998; 18-NOV-1998; 18-NOV-1998; 18-NOV-1998; 18-NOV-1998;

03-NOV-1998; 03-NOV-1998; 03-NOV-1998; 03-NOV-1998; 03-NOV-1998; 10-NOV-1998; 17-NOV-1998; 17-NOV-1998; 17-NOV-1998;

اند سرا

43

1098 1098 1098 1098 1098 1098 1098 1098	4-SEP-1998; 98US 4-SEP-1998; 98US 4-SEP-1998; 98US 4-SEP-1998; 98US	3-SEP-1998; 98US 4-SEP-1998; 98US	3-SEP-1998; 98US 3-SEP-1998; 98US	3-SEP-1998; 98US 3-SEP-1998; 98US	2-SEP-1998; 98US 3-SEP-1998; 98US	8-SEP-1998; 98US 8-SEP-1998; 98US	8-SEP-1998; 98US 8-SEP-1998; 98US	9-SEP-1998; 98US	7-SEP-1998; 98US	7-SEP-1998; 98US	7-SEP-1998; 98US:	5-SEP-1998; 98US	S-SEP-1998; 98US	S-SEP-1998; 98US	5-SEP-1998; 98US	S-SEP-1998; 98US-	SEP-1998; 98US	998; 98US-	SEP-1998; 98US-	0-SEP-1998; 98US-	9-SEP-1998; 98US-	998; 98US- 998; 98US-	9-SEP-1998; 98US- 9-SEP-1998; 98US-	2-SEP-1998; 98US-	2-SEP-1998; 98US-	1-SEP-1998; 98US- 1-SEP-1998; 98US-	1-SEP-1998; 98US-	0-DEC-2001; 200103-		01-MAY-2003.	US2003082626-A1.	Homo sapiens.	herpetiformis; Crohn's disease; thalassaemia; ss	endothellar cell; bone disorder; carriage disorder de healing; diabetes; skeletal muscle cells; obesite	primer; secreted protein; transmembrane protein;, onse; cardiac insufficiency disorder; calcium flux;	105
PR PR PR	אק אק אק	מ מק	ק אַק	א פין א פין	י טי נ א לא נא	מק	קר קר	R.d.	PR	PR	PR	PR	PR	PR	PR	PR	ਲਵ	אָלָם אָלָ	PR	PR PR	PR	- P R	PR	PR	ਲਵਾ	PR	PR G	PR PR	PR	PR	PR Rd	PR	PR :	PR	PR	PR PR
12-APR-1999; 16-APR-1999; 16-APR-1999; 23-JUN-1999;	18-NOV-1	18-NOV-1	18-NOV-1998	17-NOV-1998	17-NOV-1998	17-NOV-1998	17-NOV-1	17-NOV-1998	10-NOV-1998	03-NOV-1998	03-NOV-1998	03-NOV-1998	30-OCT-1998 03-NOV-1998	29-OCT-1998	29-OCT-1998	28-OCT-1998 28-OCT-1998	28-0CT-1998	28-OCT-1998	27-0CT-1998	27-OCT-1998	26-0CT-1998 27-0CT-1998	26-OCT-1998	22-OCT-1998	20-OCT-1998	20-OCT-1998	14-0CT-1998	08-OCT-1998	08-OCT-1998	07-0CT-1998	07-OCT-1998	07-OCT-1998	06-OCT-1998	02-0CT-19	01-OCT-1998	30-SEP-1998	30-SEP-1998; 30-SEP-1998;
99WC-U2000106 99US-00284291 99US-0129674P 99US-0141037P	010890	010885	010884	010892	010880	010880	010878	010877	010778	010693	010691	010690	010646	010850	010624	010603 010617	010603	010602	010606	010588 010588	010580	010569	010516	010500	010500	010425	0103679	0103633 0103678	010340	0103395	0103315)103449)103314	102965)102684)102687)10257()102571)102484)102487

```
RESULT 167
ADE21689
ID ADE216
XX ADE216
XX ADE216
XX 29-JAN
XX 29-JAN
XX Human;
XX Human;
XX immune
XX imm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 17
  Human; PCR; primer; secreted protein; transmembrane protein; PRO; tumour; immune response; cardiac insufficiency disorder; calcium flux; umbilical vein endothelial cell; bone disorder; cartilage disorder; arthritis; wound healing; diabetes; skeletal muscle cells; obesity; Berger disease; nephropathy; Schonlein-Henoch purpura; coeliac disease; dermatitis; herpetiformis; Crohn's disease; thalassaemia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gao W, G
Pan J, P
Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-DEC-1999

05-JAN-2000

06-JAN-2000

11-FEB-2000

14-FEB-2000

02-MAR-2000

15-MAR-2000

17-MAY-2000

27-MAY-2000

27-MAY-2000

27-MAY-2000

27-MAY-2000

28-MAY-2000

29-MAY-2000

2000

21-MAY-2000

21-MAR-2001

21-JUN-2001

21-JUN-2001
                                                                                                                                                            Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel isolated PRO polypeptides useful for tissue typing, biological activity of cell, as molecular weight markers electrophoresis, for treating arthritis and tumors.
                                                                                                                                                                                                                                                                                         ADE21689 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-765413/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             r KP, Botstein D, Desi
W, Goddard A, Godowsk:
J, Paoni NF, Roy MA,
iams PM, Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                          669 CTGAAGCTCACAGATGGATC
                                                                                                                                                          secreted/transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ch 1.8%;
l Similarity 85.0%;
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                               CTGAAGCTGCCAGATGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WC-US00319.
2000WC-US00376.
2000WC-US003442.
2000WC-US005804.
2000WC-US005884.
2000WC-US005884.
2000WC-US013705.
2000WC-US013705.
2000WC-US014941.
2000WC-US014941.
2000WC-US01564.
2000WC-US033528.
2000WC-US033528.
2000WC-US033528.
2000WC-US033678.
2001WC-US0366520.
2001WC-US0066520.
2001WC-US0166520.
2001WC-US01766.
                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0144758P
99US-0145698P
99WO-US020111
99WO-US021194
99WS-0162506P
99WS-0162506P
99WS-0162506P
99WO-US028313
99WO-US028313
99WO-US028313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D, Desnoyers L, Eaton DL, Ferrara N, Fong S;
Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
Roy MA, Smith V, Stewart TA, Tumas D, Watanabe
                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                         23
                                                                                                                                                                                                                                                                                       ₽P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 15.2; D
Pred. No. 2.6e
0; Mismatches
                                                                                                                                                        protein PRO1563 PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                             22
                                                                                                                                                                                                                                                                                                                                                                                                                                        883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modulating in protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
      17-SEP-1998
17-SEP-1998
17-SEP-1998
17-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
18-SEP-1998
23-SEP-1998
30-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-SEP-1998
15-SEP-1998
15-SEP-1998
15-SEP-1998
16-SEP-1998
16-SEP-1998
16-SEP-1998
16-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-SEP-1998
10-SEP-1998
10-SEP-1998
10-SEP-1998
10-SEP-1998
10-SEP-1998
10-SEP-1998
10-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-SEP 1998
01-SEP 1998
01-SEP 1998
01-SEP 1998
02-SEP 1998
02-SEP 1998
02-SEP 1998
02-SEP 1998
09-SEP 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US2003082628-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens.
98US-0099716P-
98US-009873P-
98US-009873P-
98US-009883P-
98US-009883P-
98US-0099596P-
98US-0099598P-
98US-0099598P-
98US-0099741P-
98US-0099783P-
98US-0099783P-
98US-0099783P-
98US-0099783P-
98US-0099783P-
98US-0099783P-
98US-0099783P-
98US-0099783P-
98US-0100684P-
98US-0100684P-
98US-0100684P-
98US-0100684P-
98US-010071P-
98US-0100684P-
98US-0101071P-
98US-0101071P-
98US-01010710P-
98US-0101071P-
98US-0101071P-
98US-0101071P-
98US-0101071P-
98US-0101071P-
98US-0101071P-
98US-0101071P-
98US-0101747P-
98US-0101747P-
98US-0101747P-
98US-0101748P-
98US-0101748P-
98US-0101748P-
98US-0101748P-
98US-010244P-
98US-0102577P-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-00017527
```

밁 Ş

3-0103258P. 3-0103449P. 3-0103314P. 3-0103315P. -0103328P

20

```
RESULT 168
AAF53332/c
ID AAF533
XX AAF533
XX AAF533
XX AAF533
XX AAF533
DT 30-MAR
XX IGF-I
XX Y Cytost
XW Cytost
XW Skin d
XW Skin d
XW IGF bi
XW Skin d
XW IGF bi
XW 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-FEB-2000;
18-FEB-2000;
18-FEB-2000;
24-FEB-2000;
15-MAR-2000;
15-MAR-2000;
17-MAY-2000;
22-MAY-2000;
30-MAY-2000;
23-AUG-2000;
24-AUG-2000;
24-AUG-2000;
24-AUG-2000;
26-FEB-2001;
01-DEC-2000;
21-MAR-2001;
01-MAR-2001;
01-MAR-2001;
01-UUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gao W, G
Pan J, F
Williams
                                                                                                    Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic; cytostatic; dermatological, cardiant, virucide; ophthalmological, keloid; skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityrissis; IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris; growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba; keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease; hyperneovascular condition; hyperplasia; kidney disease; neovascular condition of the retina; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel secreted and transmembrane PRO polypeptides useful for treating cancers, kidney disorders, Crohn's disease, diabetes mellitus, hyperhypo-insulinemia, sports injuries and arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH )
                                                                                                                                                                                                                                                                                                                                                30-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                       AAF53332;
                                                                                                                                                                                                                                                                                                                                                                                                                                  AAF53332
                                                                                                                                                                                                                                                                                                   IGF-I oligonucleotide #4292.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2003-755105/71.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    召
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Paoni NF,
ms PM, Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goddard
                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGAAGCTGCCAGATGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGAAGCTCACAGATGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Botstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US00376.
2000WO-US004342.
2000WO-US005044.
2000WO-US005841.
2000WO-US00684.
2000WO-US013705.
2000WO-US014942.
2000WO-US014941.
2000WO-US013264.
2000WO-US013526.
2000WO-US033673.
2000WO-US033673.
2000WO-US032678.
2001WO-US032678.
2001WO-US032673.
2001WO-US032673.
2001WO-US032673.
2001WO-US032673.
2001WO-US032673.
2001WO-US01780.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   relates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ROY MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D, Desnoyers L, Eaton DL, Ferrara N,
Godowski PJ, Grimaldi JC, Gurney AL,
Roy MA, Smith V, Stewart TA, Tumas D,
                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            to an isolated PRO polypeptide .
having at least 80% amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              548pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                    쁌
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scorë 15.2; DB 1;
Pred. No. 2.6e+02;
0; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 w
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , Fong S;
Hillan KJ;
, Watanabe (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or
identity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
```

Q,

or P

0

WC200078341-A1

sapiens.

06-OCT-1998 07-OCT-1998 07-OCT-1998 07-OCT-1998 07-OCT-1998 08-OCT-1998 08-OCT-1998 08-OCT-1998 08-OCT-1998 08-OCT-1998 104-OCT-1998 20-OCT-1998 20-OCT-1998 20-OCT-1998 22-OCT-1998 22-OCT-1998 22-OCT-1998 22-OCT-1998 23-OCT-1998 27-OCT-1998 27-OCT-1998 28-OCT-1998 29-OCT-1998 11-NOV-1998 11-N

98US-0103401P.
98US-0103679P.
98US-0103679P.
98US-0103679P.
98US-0105002P.
98US-0105002P.
98US-0105002P.
98US-010502P.
98US-0105266P.
98US-0105266P.
98US-0105266P.
98US-0106032P.
98US-01

of.

```
RESULT 169
AAF53331/c
ID AAF533
XX AAF533
XX AAF533
XX AAF533
XX AAT186
XX SAIN (
XX SAIN (
XX IGF b)
XX HOMO (
XX IGF b)
XX HOMO (
XX H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 15; Conserv
                                                    21-JUN-2000; 2000WO-AU000693
                                                                                                                                                                                                                                                                                                                                                                                                  Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic; cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid; skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis; IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris; growth factor mediated cell proliferation; ichthyosis; serborrhee; ruba; keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease; hyperneovascular condition; hyperplasia; kidney disease; neovascular condition of the retina; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to a method for ameliorating the effects of skin disorders. The method comprises contacting the skin with an antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1 receptor, IGF binding protein [IGFBP]-2 or IGFBP3], which is capable of inhibiting or reducing growth factor mediated cell proliferation, inflammation and/or other disorders. The present sequence is an oligonucleotide which can be used to design the antisense oligonucleotides of the present invention (see ARP45151 and ARF45153-1945161). The method is useful for ameliorating the effects of psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the skin, a hyperneovascular condition such as a neovascular condition of the retina, disease, kidney disease, hyperproliferation of the inside of blood vessels or any other hyperproliferation of the inside of blood
                                                                                                                                          28-DEC-2000.
                                                                                                                                                                                                                           WO200078341-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disease, kidney vessels or any
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAF53331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 15 BP; 2 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IGF-I oligonucleotide #4291.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 8; Page 88; 201pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ameliorating the effects of a disorder, e.g. psoriasis, by administering UV (ultra-violet) treatment (optional) and an antisense nucleic acid that the control of the contr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-041421/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wraight CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-JUN-2000; 2000WO-AU000693
                                                                                                                                                                                                                                                                                                                      sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              319 ACTGCAGAGAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>بر</u>
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MURDOCH CHILDRENS RES INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard; DNA; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTGCAGAGAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.8%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Werther GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              other hyperplasia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0140345P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5 C; 3 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Edmondson SR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 15; DB 1; Le
Pred. No. 1.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
```

```
RESULT 170
ABL58300
ID ABL583
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                    Glucose transporter; GLUT10; insulin; glucose metabolism; single strand con: type 2 diabetes; SSCP; primer; ss.
                                                                                                                   31-AUG-2000; 2000US-00652292.
                                                                                                                                                 22-AUG-2001; 2001WO-US026184.
                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 skin disorders. The method comprises contacting the skin with an antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1 receptor, IGF binding protein [IGFBP]-2 or IGFBP], which is capable of inhibiting or reducing growth factor mediated cell proliferation, inflammation and/or other disorders. The present sequence is an oligonucleotide which can be used to design the antisense oligonucleotides of the present invention (see AAF45151 and AAF45153-G150). The method is useful for mediated the effects of psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis, ineoplasias, scleroderma, warts, benign growths, cancers of the skin, a hyperneovascular condition such as a neovascular condition of the retina, brain or skin, growth factor-mediated malignancies, other sclerotic disease, kidney disease, hyperproliferation of the inside of blood
                                                                                                                                                                                07-MAR-2002
                                                                                                                                                                                                             WO200218621-A2
                                                                                                                                                                                                                                                                                                                                Human GLUT 10 SSCP analysis primer GLUT10 ex2cF.
                                                                                       (UYWA-) UNIV WAKE FOREST
                                                                                                                                                                                                                                                                                                                                                                 15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                ABL58300;
                                                                                                                                                                                                                                                                                                                                                                                                                             ABL58300 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 15 BP; 3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vessels or any other hyperplasia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 8; Page 88; 201pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ameliorating the effects of a disorder, e.g. psoriasis, by administering UV (ultra-violet) treatment (optional) and an antisense nucleic acid that inhibits or reduces growth factor mediated cell proliferation and/or inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-041421/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wraight CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                           2002-371828/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   320 СТССАСАСААССТСТ 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15
                                                          DW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                l Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MURDOCH CHILDRENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCAGAGAAGCTGT
                                                        Dawson PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Werther
                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0140345P
                                                                                                                                                                                                                                                                      sm; single strand conformational
SSCP; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 C; 3 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         relates to a method for ameliorating the effects
                                                        Fossey
                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Edmondson SR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RES INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                     chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 15;
                                                                                                                                                                                                                                                                                     20Q12-13.3; human; polymorphism; PCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
```

0

New glucose transporter gene and protein, designated GLUT10, useful for

studying and analyzing biological processes of glucose metabolism and Type 2 diabetes, as well as for screening modulators of glucose

S 밁

 q_{Ω_1}

er Z,

```
RESULT 171
AAF96192
ID AAF961
XX AAF961
XX Human
DT 06-JUN
XX Human
XX Human
KW POLymc
KW POLymc
KW POLymc
KW POLymc
XX PI Variat
FT Variat
FT Variat
FT Variat
FT 16-AU
XX WPI;
PT 16-AU
XX WPI;
PT Annaly
PT analy
PT analy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a novel glucose transporter gene and protein, designated GLUT10. GLUT 10 is an insulin-responsive glucose transporter gene located in the type 2 diabetes linked region of chromosome 20012-13.3. The GLUT 10 polypeptide can be expressed by standard recombinant methodology. The GLUT 10 glucose transporter gene and protein are useful for studying and analysing biological processes of both glucose metabolism and type 2 diabetes. These are also useful in drug screening techniques, especially for screening modulators of glucose transporter activity or compounds having the ability to be transported across the cell membranes. Sequences ABL5829-315 represent primers specific for the various regions of the human GLUT 10 glucose transporter gene, used in single strand conformational polymorphism (SSCP) analysis of the gene
                                                                                                                                                                                            10-SEP-1999;
26-JUL-2000;
16-AUG-2000;
Nucleic acids comprising single nucleotide polymorphisms, useful in applications such as forensics, paternity testing, medicine, genetic analysis and phenotype correlations to diseases such as diabetes and atherosclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; variant thrombospondin 1; variant thrombospondin 4; SNP; polymorphism; vascular disease; coronary artery disease; forensics; myocardial infarction; atherosclerosis; stroke; venous thromboembolism; pulmonary embolism; paternity test; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAF96192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 3 A; 4 C; 8 G; 5 T; 0 U; 0 Other;
                                                                                                                                               (MILL-)
                                                                                                                                                                                                                                                             07-SEP-2000; 2000WO-US024503
                                                                                                                                                                                                                                                                                            15-MAR-2001
                                                                                                                                                                                                                                                                                                                           WO200118250-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAF96192 standard;
                                                                                                                                                                                                                                                                                                                                                                                           Variation
                                                                                 2001-226749/23
                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15;
                                                                                                              ES,
                                                                                                                                           WHITEHEAD I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGCAACTTGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGCAACTTGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Page 52; 85pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      single
                                                                                                              Gargill
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                            99US-0153357P.
2000US-0220947P.
2000US-0225724P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers replace(11,A) /*tag= a
                                                                                                                                                                                                                                                                                                                                                        /standard_name= "single nucleotide polymorphism"
                                                                                                                                               INST BIOMEDICAL M PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nucleotide polymorphism #953.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.8%; but
100.0%; Pr
                                                                                                              Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                              Ireland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 15; DB; Pred. No. 2.3
                                                                                                                JS,
                                                                                                                Bo1k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1;
2.3e+
                                                                                                              ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                              Daley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                ģ
                                                                                                                 Mccarthy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                 딥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

```
RESULT 172
AAV40625
ID AAV406
XX AAV406
XX AAV406
XX 26-OCT
XX 27-OCT
XX 27-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention provides a method of diagnosing a vascular disease in an individual, involving determining the sequence at various polymorphic sites within the human thrombospondin 1 and thrombospondin 4 genes. The sequences at a number of polymorphic sites are also provided in the specification. In particular, the method can be used in the disease, stroke, peripheral vascular diseases, venous thrombosembolism and pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also useful in forensics, paternity testing, genetic analysis and phenotype correlations to diseases. The present sequence is an example of one of the human gene SNPS shown in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-DEC-1996;
23-MAY-1997;
24-JUN-1997;
14-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 In vivo recombination; homologous recombination; plasmid pMB430; Savisyn; Savinase; subtilisin; protease; green fluorescent protein; enzyme engineering; detergent; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
Aequorea victoria.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV40625;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV40625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example;
                                                                                                                                                                                                                                                                                                                                                                                                                                   (NOVO ) NOVO-NORDISK AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9828416-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                348 GCCAGCGCCAACCTG 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fluorescent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 116; 242pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   eccaececcaacere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP; 3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96DK-00001471.
97DK-00000592.
97US-0050590P.
97DK-00000935.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97WO-DK000567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ູດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ц;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #20231.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
```

primers #20231 and #101381 (see AAV40626) are designed to amplify the mutated green fluorescent protein (GFP) gene from the E. coli plasmid pr64L-S65T-GFP. The GFP gene PCR product was used in the construction of novel temperature sensitive shuffling plasmid pMB430 (see AAV24562). This plasmid was used to demonstrate a novel method of in vivo recombination plasmid was used to demonstrate a novel method of in vivo recombination

DNA

sequences, in this case Savisyn

and Savinase

In vivo recombination of homologous DNA - using sequences different origins of replication that are effective under conditions, useful for scrambling enzyme genes to produce

s which include r different e variant

WPI; 1998-377647/32.

Bjornvad ME,

Rasmussen

Ä,

Jorgensen

PL,

Borchert

Z,

proteins

Page

28; 56pp; English.

```
RESULT 173
AAA37709/c
밁
                        Ş
                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SSSS
                                                      Query Match
Best Local Similarity
Matches 18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                    be used in a method of the invention, for inhibiting cell proliferation. They can also be used in methods for inducing sensitivity to radiation and DNA damaging chemotherapeutics in an individual and in a method for prolonging survival in an individual with cancer. The methods and antisense molecules are useful for inhibiting cell proliferation, especially cancerous cell proliferation, for inducing sensitivity to radiation and DNA damaging chemotherapeutics in individuals and for prolonging survival in an individual with cancer. Kits for carrying of the methods may be used to diagnose and/or treat cancer and for
                                                                                                             Sequence 23
                                                                                                                                                                                                                                                                                 This sequence represents an antisense inhibitor of human Rad51, designated AS9 (also referred to as R51AS9). The antisense inhi
                                                                                                                                                                                                                                                                                                                             Claim 8; Page 26; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                        Inhibiting cell proliferation useful for cancer therapy, comprises administering Rad51 inhibitor in vivo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-FEB-1999;
06-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-FEB-2000; 2000WO-US002881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human Rad51 antisense inhibitor AS9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAA37709 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 23 BP; 7 A; 5 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          subtilisins, for the generation of sequences encoding novel proteins having advantageous properties of potential commercial value
                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-506091/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            (PANG-) PANGENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200047231-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               radiation sensitivity; therapy; AS9; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              769 AACTGGAGAAGAAGTGTGAGCGC 791
23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   μ
 CCCAGCTACTCTATAGCCTGAGG 1
                           CCCTGCTAGTCTAAAGCCAGATG 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACTGCAGAAGATGTGGACGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           inhibitor; human; Rad51; cell proliferation; cancer survival;
                                                                                                             BP; 5 A; 5 C; 8 G; 5 T; 0 U; 0 Other;
                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0015478P
99US-00454495
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.8%;
                                                                    1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                    Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 15;
Pred. No. 2
                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23
                                                                                                                                                                                                                                                        51AS9). The antisense inhibitors can for inhibiting cell proliferation. inducing sensitivity to radiation
                                                                                 DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ув 1,
2.9e+02;
5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1;
                                                                    .9e+02
                                                                                 Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 23;
                                                                                                                                                                   Kits for carrying out
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

```
RESULT 174
AASO1202/c
ID AASO1202;
XX
AC AASO1202;
XY
AC AASO1202;
XY
AC AASO1202;
XY
DT 04-JUL-2001 (first entry)
XY
DE Human RADS1 antisense oligo
XX
Human; RadS1; antisense; di
XX
Arthritis; graft rejection,
XX
Argicplasty; ss.
XX
Argicplasty; ss.
XX

PN W0200119397-A1.
XX

PN W0200119397-A1.
XX

XX

10-SEP-2000; 2000WO-US0258:
XX
XX

PN W02001244704/25.
XX
XX

PR 17-SEP-1999; 99US-004553(
XX
XX
XX
XX
INFOLITY OF ANGENE CORP.
XX
XX

PANG-) PANGENE CORP.
XX
XX
INFOLITY OF ANGENE
XX
XX
INFOLITY OF ANGENE
XX
INFOLITY OF AN
RESULT 175
AAD43248/c
ID AAD4322
XX AAD432
XX AAD432
XX AAD432
XX DT 14-NOV
DT 14-NOV
DE Antise
XX Tumour
KW Tumour
KW Typerp
KW hyperp
KW leukae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The sequence represents the human Rad51 antisense oligonucleotide, AS9. The antisense oligonucleotide is used to study down-regulation of Rad51 protein in human brain, breast and prostate cells. Rad51 protein is defective in repair of damaged DNA, genetic recombination and the recombinational repair of DNA lesions, and plays a central role in cancer. Inhibiting cell proliferation involves administering to a cell a Rad51 antibody or its fragment. The Rad51 antibody or its fragment is useful for inhibiting cell proliferation, for treating disease states such as cancer, autolumune disease, arthritis, graft rejection, inflammatory bowel disease, proliferation induced after medical procedures such as surgery, angioplasty etc. in humans and animals
                                                                                                                             Antisense oligonucleotide R51AS9
                                                                                                                                                                                             14-NOV-2002
                                                                                                                                                                                                                                                                                                                       AAD43248 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 23 BP; 5 A; 5 C; 8 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; Rad51; antisense; drug screening; cancer; autoimmune disease; arthritis; graft rejection; inflammatory bowel disease; surgery; angioplasty; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Inhibiting cell proliferation for treating arthritis, graft rejection, inflammatory bowel disease, cancer, proliferation induced after medical procedure, involves administering Rad51 antibody or its fragment to cel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human RAD51 antisense oligonucleotide,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 6; Fig 16C; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-SEP-2000; 2000WO-US025838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            431 CCCTGCTAGTCTAAAGCCAGATG 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCAGCTACTCTATAGCCTGAGG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0154616P.
99US-00455300.
                                                                                                                                                                                                                                                                                                                       DNA;
                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.8%;
                                                                                                                                                                                                                                                                                                                       23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23
                                                                                                                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
```

Tumour cell proliferation; Rad51 inhibitor; p53 protein; premature aging; hyperproliferative disorder; Hodgkin's disease; squamous cell carcinoma; leukaemia; autoimmune disease; cancer; graft rejection; angioplasty;

0

antisense;

inflammatory bowel disease;

phosphorothicate

backbone; ss.

immunosuppressive; gene therapy; arthritis

```
RESULT 176
ADC70337
ID ADC703
XX
AC ADC703
XX
C ADC703
XX
DT 18-DEC
XX
Prime1
XX
PCR; I
KW PCR; I
KW PCR; I
KW PCR; I
KW Cytos:
XX
Unide:
XX
PN W0200
                                                                                                                                                                                                                                                                                           멂
                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 18; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to a method for inhibiting or reducing tumour cell proliferation in an individual in vivo. The method comprising contacting a tumour cell in vivo with a Rad51 inhibitor and a polymucleotide capable of expressing functional p53 protein. The method is useful for inhibiting or reducing tumour cell proliferation in an individual in vivo. The method is useful for treating hyperproliferative discreters, especially cancer (such as Hodgkin's disease, squamous cell carcinoma and leukaemia), premature aging, autoimmune disease, arthritis, graft rejection, inflammatory bowel disease, and proliferation induced after medical procedures such as surgery and angioplasty. The invention is useful in gene therapy. The present sequence is an antisense oligonucleotide used to illustrate the method of the invention
                                                          PCR; primer; ss; lung cell proliferative disorder; CpG dinucleotide; adenocarcinoma; squamous cell carcinoma; cytostatic; probe; PNA-oligomer; cytosine methylation state.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Inhibiting/reducing tumor cell proliferation in individual treating cancer, arthritis, involves contacting tumor cell Rad51 inhibitor, and polynucleotide expressing functional r
                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 23 BP; 5
                                Unidentified
                                                                                                                      Primer oligo
                                                                                                                                                     18-DEC-2003
                                                                                                                                                                                                               ADC70337 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 5; 12pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zarling
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-JAN-2000; 2000US-0178561P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-JAN-2001; 2001US-00771355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US2002086840-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (REDD/)
                                                                                                                                                                                                                                                                                           23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZARLING D A. REDDY G.
                                                                                                                                                                                                                                                                                                                       CCCTGCTAGTCTAAAGCCAGATG 453
                                                                                                                                                                                                                                                                                           CCCAGCTACTCTATAGCCTGAGG
                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                      used for analysing CpG islands in genomic DNA (SeqID 827).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reddy G
                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
1. .23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mod_base= OTHER
/note= "Phosphorothioate backbone"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                              A; 5 C; 8 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                  78.3%;
                                                                                                                                                                                                                                                                                                                                                                                 1.8%;
                                                                                                                                                                                                               ΒP
                                                                                                                                                                                                                                                                                                                                                    °,
                                                                                                                                                                                                                                                                                                                                                                    Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                    N
                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                                                                                                                                                                                                                                    9e+02;
                                                                                                                                                                                                                                                                                                                                                    <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                 Length 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         al in vivo, for
ll in vivo with
l p53 protein.
                                                                                                                                                                                                                                                                                                                                                    <u>,</u>
                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                    0
```

```
밁
                                                                                                                                                           Ş
                                                                                                                                                                                            Matches
                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                        This invention relates to a novel method for detecting and differentiating between lung cell proliferative disorders associated with at least one gene and/or their regulatory regions. Specifically, it refers to a method comprising contacting a target nucleic acid in a biological sample with at least one reagent, wherein the reagent is able to distinguish between methylated and non-methylated Cgd dinucleotides present in the target DNA. As such, it is possible to further differentiate and diagnose medical conditions including adenocarcinoma and squamous cell carcinoma, and their respective adjacent lung tissue. The present invention describes cytostatic oligomers and PNA-oligomers that are useful as probes for determining the cytosine methylation state or single nucleotide polymorphisms (SNPs) of the target sequence. This oligomicleotide sequence is a primer oligomer used for the analysis of CgG positions within genomic DNA, used in an exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Burger M,
Nimmrich
                                                                                                                                                                                                                                                    Sequence 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Detecting and differentiating cytosine methylation state of genomic useful for diagnosing, treating prognosticating and/or monitoring lucell proliferative disorders e.g. adenocarcinoma and squamous cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI;
 26-AUG-2002
                             ABK93683;
                                                                                                                                                                                                                                                                                  CpG positions invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     carcinoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-DEC-2002; 2002WO-EP014026.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-JUN-2003
                                                          ABK93683 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (EPIG-) EPIGENOMICS
                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2003-533029/50.
                                                                                                                                                   931 TCAGGTTTTGTTTTATGA 948
                                                                                                                                   ш
                                                                                                                                                                                          l Similarity
16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           H
                                                                                                                                  TGAGGTTTTGTTTTAAGA 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 827; 58pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Field JK,
                                                                                                                                                                                                                                                   BP; 4
                                                                                                                                                                                          Conservative
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001DE-01061625
                                                                                                                                                                                                                                                    Þ
                                                                                                                                                                                                       1.8%;
                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genc
                                                                                                                                                                                                                                                    ü
                                                                                                                                                                                                                                                    ຫ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       m
                                                           ВP
                                                                                                                                                                                                                                                      <u>ن</u>
                                                                                                                                                                                          0;
                                                                                                                                                                                          Score 14.8; DB 1;
Pred. No. 2.2e+02;
0; Mismatches 2
                                                                                                                                                                                                                                                    9 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Liloglou T,
                                                                                                                                                                                                                                                    0
U;
                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                        DB 1;
                                                                                                                                                                                                                                                      Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Lipscher
                                                                                                                                                                                                                     Length 18;
                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Maier
                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ß
                                                                                                                                                                                            Gaps
                                                                                                                                                                                             0
```

```
RESULT 177
ABK93683/C
ID ABK936
XX ABK936
AC ABK936
XX 26-AUG
XX Human
XX Gytost
KW Cytost
KW pancre
KW Dancre
KW Outost
KW Dancre
KW Dancre
KW Outost
KW Dancre
K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cytostatic; cancer; ovarian cancer; adenocarcinoma; lymphoma; pancreatic cancer; embryonic development; viral pathogenesis; autoimmune disorder; neurodegenerative disease; multiple scle: lupus erythematosus; herpes virus infection; pox virus infect.
                                                                                                                                                                                                                                                                                                                                      WO200226968-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             adenovirus infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; ss; antisense; inhibitor of apoptosis; HIAP1; HIAP2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human inhibitor of apoptosis, XIAP, antisense oligonucleotide #30
                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      proliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sclerosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      XIAP;
la; IAP;
```

WO2003052135-A2

27-SEP-2001; 2001WO-CA001379

28-SEP-2000; 2000US-00672717 (UYOT-) UNIV OTTAWA.

(AEGE-) AEGERA THERAPEUTICS INC

OUT OF TOUGHT OF THE

Korneluk RG, Lacasse E, Baird S, Holcik M,

Young S

WPI; 2002-479562/51

Novel antisense inhibitor of apoptosis nucleic acid useful for enhancing apoptosis in a cell, for treating cancer and other proliferative

Claim 8; Page 33; 135pp; English.

The invention relates to an inhibitor of apoptosis (IAP) antisense CC nucleic acid (I) that inhibits IAP biological activity, regardless of CC length of the antisense nucleic acid, the IAP proteins may be mouse or CC human XIAP, HIAP1 or HIAP2 Also included are a pharmaceutical cc composition comprising a mammalian IAP antisense molecule and a method of CC enhancing apoptosis in a cell, comprising administering a negative CC regulator of the IAP anti-apoptotic pathway to the cell. The IAP CC antisense inhibitor is useful for enhancing apoptosis in a cell in a cc cell and a method of CC mammal diagnosed with a proliferative disease. The method is useful for treating a patient diagnosed with a proliferative disease like cancer. CC The IAP antisense molecule is useful to treat, ameliorate, improve, CC sustain or prevent proliferative diseases (e.g. ovarian cancer. CC conditions where apoptosis is involved or implicated (e.g. embryonic CC development, viral pathogenesis, autoimmune disorders, neurodegenerative diseases, multiple sclerosis, lupus erythematosus and infection by herpes CC virus, pox virus and adenovirus). The present sequence is an IAP

Sequence 19 BP; 6 A; 6 C; 3 G; 4 T; 0 U; 0 Other;

Query Match Best Local S Matches 16 1 Similarity Conservative 88.9%; 0; Score 14.8; DB 1; Pred. No. 2.4e+02; 0; Mismatches 2 DB 1; Length 19; Indels 0; Gaps 0

B Ş 657 18 GTTCTCATGCAGCTGAAG 674 GTTGTCATGCAGCTGTAG ш

RESULT 178
ABZ842560/c
ID ABZ842
XX ABZ842
XX TOXICO
XX HOLD
XX TOXICO
XX TO

ABZ84260 standard; DNA; 19 ΒP

ABZ84260;

14-MAY-2003 (first entry)

Toxicologically relevant rat PCR primer #1419

Toxicologically relevant gene; toxicological response; PCR primer; ss

Rattus sp. Synthetic.

WO2003016500-A2

27-FEB-2003

16-AUG-2002; 2002WO-US026514

16-AUG-2001; 2001US-0313080P

(PHAS-) PHASE-1 MOLECULAR TOXICOLOGY INC.

Neft RE, Alen P; Dunn RT, Adkins K, Pickett GG, Kier LD, Schmeiser

WPI; 2003-268322/26.

Determining a toxicological response to an agent, useful for screening drugs, comprises comparing the expression profile of one or more human toxic response genes to a reference gene expression profile indicative O. 0

Claim 1; Page 338; 455pp; English

CC toxicological response to an agent, which comprises comparing the CC expression profile of one or more human toxic response genes to a creference gene expression profile indicative of toxicity, and so cC determining the presence of a toxic response to the agent. Also cC described: (1) an array comprising one or more polynucleotides selected cfrom the genes corresponding to the partial sequences given in ABZ82842 cC from the genes corresponding to the partial sequences given in ABZ82842 cC; and (2) determining if a gene putatively identified to be a toxic response gene plays a role on toxic response pathways by determining the expression profile of the gene after exposure of cells or a human subject to a known toxic pharmaceutical or industrial agent, comprising: who capposing cells to an agent or isolating cells from a human subject who capposing cells to an agent; (b) obtaining the test gene expression profile of a putatively identified toxic response gene after exposure to a known toxic pharmaceutical or industrial agent; and (c) comparing the test profile to the expression profile of a gene with a similar function or comparing the test profile to the expression profile of the special responses on a cellular, organ or system level. The arrays comprising the human genes are useful for toxicological screening of drugs, pharmaceutical compounds and chemicals The present invention describes a method (M1) for determining

Sequence 19 BP; 2 A; 6 C; 6 G; 5 T; 0 U; 0 Other;

밁 á Best Local Similarity
Matches 16; Conserv Query Match 852 CCCCCCACTGGTGATGAG 869 19 Conservative 88.9%; N 0 Pred. Score 14.8; Mismatches ö. .4e+02 DB 1; Length 19, Indels 0 Gaps

0,

AAQ53923 standard; DNA; 20

AAQ53923;

RESULT 179
AAQ539239
ID AAQ539
AC AACA539
AC AACA5 25-MAR-2003 21-JUN-1994 (revised) (first entry)

TYR 1 PCR primer for amplifying TYR locus used in detection method

PCR; polymerase chain reaction; detection; amplification; ASPE; allele specific primer extension; discrimination; ss.

WO9325563-A1

23-DEC-1993

17-JUN-1992; 92WO-US005133

17-JUN-1992; 92WO-US005133

(CITY) CITY 얶 HOPE

Wallace RB

WPI; 1994-007441/01

Š

밁

ន្តិនិត្តនិង្គ

ĮÍ,

```
Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Two primers TYR 1 and 2 (AAQ53923-24) were used to amplify the TYR locus for use as a template. An allele specific primer (AAQ53925) was then used to amplify the template molecule, the first base incorporated into the extension products being radioactively labelled. Individuals homozygous for the TYR allele gave one extension product and those heterozygous for the allele gave two extension products. The extension products were captured on a grid by hybridisation with one synthetic oligonucleotide to which the 5' end of the allele specific primer was made complementary. See AAQ53926-47 for grid oligonucleotides. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                          28-NOV-1997;
17-DEC-1997;
04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               nongonococcal uretritis; epidymitis; cer bartholinitis; pneumopathv. vonc.
PCR primers AAZ01426-Z06209 were used to amplify open reading frames (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs encode polypeptides (see AAY36734-Y37949) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vaccine; eye disease; conventional trachoma; nonendemic trachoma; paratrachoma; inclusion conjunctivitis; gential disease; perihepat nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New
end
                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
Chlamydia trachomatis.
                                                                                                                      Disclosure; Page 1768; 1755pp; English.
                                                                                                                                                                                                                                                                                                                                        27-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                  WO9928475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PCR primer used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ05409;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ05409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complementary
                                                                                                                                                                                   WPI; 1999-371125/31.
                                                                                                                                                                                                                                                                                                                                                                     10-JUN-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           primer for detecting specific target nucleic acid in sample complementary to target which is adjacent to nucleotide and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16;
                                                                                                                                                    sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                               GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                          97FR-00015041.
97FR-00016034.
98US-0107077P.
                                                                                                                                                                                                                                                                                                                                        98WO-IB001939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to amplify an ORF of Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11; 40pp; English.
                                                                                                                                                   of Chlamydia trachomatis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            preselected sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Α;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₽₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   o
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ç.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 14.8;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        perihepatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ຜູ ເ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            has ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
```

Query Match Best Local S Matches 16

l Similarity 88.

1.8%; 10

o ;

Score 14.8; DB 1 Pred. No. 2.6e+02 0; Mismatches

DB 1;

Length

Indels

0;

Gaps

0

Sequence

20

BP; 4

A;

c;

w

G;

w

Τ;

0

٦;

0 Other;

밁 δ

```
RRESULT 181
AAX348
XX AAX348
XX AAX348
XX AAX348
XX CACACA
DT 06-JUL
XX Secret
KW Secret
KW Prohor
XX Seret
KW Prohor
XX Homo s
XX Homo s
XX Homo s
XX Homo s
XX D9-SEP
PR 29-SEP
PR 29-SEP
PR 29-SEP
PR 19-MAY
XX CZYMO
PI Sheppa
XX WPI; 1
XX WPI; 1
XX WPI; 1
XX The in
CC contai
CC contai
CC rohotai
CC rohotai
CC rohotai
CC conver
CC abiol
CC livels
CC conver
CC AAX348
XX Sequen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 16
                            The invention relates to a human secretory protein, ZSIG-11. Host cells containing a vector comprising the ZSIG-11 nucleic acid are used for the recombinant expression of the protein. ZSIG-11 is a novel ligand polypeptide and specific antibodies can be used to detect its presence a biological sample. Probes derived from ZSIG-11 is expressed at high levels in testis, and could be used to identify/study prohormone convertases or endoproteases that exhibit testis specificity. Antagonists, including antibodies, are useful for inhibiting or eliminating the function of ZSIG-11. It is possible that ZSIG-11 and it antagonists will be useful as fertility inducing therapeutics. Sequence AAX34800-21 represent PCR primers for amplifying the ZSIG-11 DNA
                                                                                                                                                                                                                                                                                                                                                                                             29-SEP-1997;
19-MAY-1998;
19-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Secretory protein; ZSIG-11; ligand polypeptide; testis; endoprotease; prohormone convertase; fertility; therapeutic; human; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             conjunctivitis; genital diseases such as nongonococal uretritis, epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis; pneumopathy in breast feeding intants; and veneral lymphogranulomatosis. The polypeptides of the invention may be of use in treating these
                                                                                                                                                                                                                                                                 Polynucleotide encoding a human secretory
                                                                                                                                                                                                                                                                                                                             Sheppard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAX34805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                     Example 1; Page 106; 113pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                           29-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9916870-A1
                                                                                                                                                                                                                                                                                                                                                               (ZYMO ) ZYMOGENETICS
                                                                                                                                                                                                                                                                                                    1999-263692/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZSIG-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCTTCAGGAAGTTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACCTTCAGAAAGTTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA
                                                                                                                                                                                                                                                                                                                                                                                             97US-0060327P.
97US-00939897.
98US-00081310.
98US-0085966P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US020449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               amplifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.8%;
                                                                                                                                                                                                                                                                                                                                                                INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               primer ZC11874.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14.8;
No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  □:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0 Other
                                                                                                                                                                                                                                                                     protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                              Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                          cells
for the
                                                                                                                                           can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

RESULT 182
AAA15595/c
ID AAA155
XX AAA155
XX AAA155
XX PCR PX
DE Revers
XW PCR PX
XW PEROXI
XW PO2000
XX WO2000
XX WO2000
XX WO2000
XX WO2000
XX WO2000
XX WO2000
XX WOYO
PA (UYJO
PA SEE
XX WPI;
XX WPI;
XX WOVel
PT agent
XX Novel
PT agent
XX Novel
PT agent
XX Novel
PT agent
XX Reamp
CC That c
CC That c
CC Tains
CC Tains RESULT 183
AAA15597/c
ID AAA155
XX
AC AAA155
XX
DT 01-AUG
XX 밁 8 밁 Ş Query Match
Best Local Similarity
Matches 16; Conserv This sequence represents a PCR primer used to amplify the hPMP70 gene that encodes a peroxisomal membrane half-transporter protein. The PCR product is used in a method for testing the effect of 4-PBnyl butyrate (4-PBA) treatment on cells derived from patients with x-linked advenced encode which the control of the product of the patient for a patient which causes peroxisome proliferation (e.g. 4-PBA). Peroxisome proliferation causes a reduction in the level of C24:0 or C26:0 fatty acids in the central nervous system of the patient. Adrenoleukodystrophy is associated with defective peroxisomal beta-oxidation of saturated long chain fatty acids. The methods are useful for treating a patient with PCR primer; adrenoleukodystrophy; 4-phenyl butyrate; 4-PBA; X-ALD; peroxisome proliferation; fatty acid reduction; treatment; human; peroxisomal membrane half-transporter protein; hPMP70; ss. Novel method for treating adrenoleukodystrophy comprises administering agent which causes peroxisome proliferation. 01-AUG-2000 AAA15597; AAA15597 Sequence 20 BP; 8 A; 4 C; 5 G; 3 T; 0 U; 0 Other; adrenoleukodystrophy, and scretreating adrenoleukodystrophy Example 7; WPI; 2000-292995/25 28-SEP-1998; 28-SEP-1999; 06-APR-2000 WO200018394-A1 Homo sapiens Reverse PCR primer for hPMP70 gene amplification. 01-AUG-2000 AAA15595 (UYJO) UNIV JOHNS HOPKINS 511 409 19 \vdash TCCAGCAGGCTCTCCGGC 426 standard; DNA; 20 BP CCAGTTTGGCATTTGGGA 528 CCAGTTTGCCATTTTGGA standard; DNA; TCCAGCAGACTCTCCAGC Page 23; 50pp; English. Conservative (first entry) (first entry) 98US-0102186P 99WO-US022415 1.8%; and screening for candidate therapeutic agents for 20 ₽₽ N 0 18 Score 14.8; Pred. No. 2 Mismatches .6e+02 DB 1; Length 20; Indels 0 Gaps an 0 밁 Ś

This sequence represents a PCR primer used to amplify the mPMP70 gene that encodes a peroxisomal membrane half-transporter protein. The PCR product is used in a method for testing the effect of 4-Phenyl butyrate (4-PBA) treatment on cells derived from mice with X-linked adrenoleukodystrophy (X-ALD). The invention relates to a treatment for a patient with adrenoleukodystrophy. The treatment comprises administering an agent which causes peroxisome proliferation (e.g. 4-PBA). Peroxisome proliferation causes a reduction in the level of C24:0 or C26:0 fatty acids in the central nervous system of the patient. Adrenoleukodystrophy is associated with defective peroxisomal beta-oxidation of saturated long chain fatty acids. The methods are useful for treating a patient with adrenoleukodystrophy, and screening for candidate therapeutic agents for treating adrenoleukodystrophy PCR primer; adrenoleukodystrophy; 4-phenyl butyrate; 4-PBA; X-ALD; peroxisome proliferation; fatty acid reduction; treatment; mouse; peroxisomal membrane half-transporter protein; mPMP70; ss. Sequence 20 BP; 8 A; 4 C; 5 G; 3 T; 0 U; 0 Other; Example 7; Page 23; 50pp; English Novel method for treating adrenoleukodystrophy comprises administering an agent which causes peroxisome proliferation. WPI; 2000-292995/25 28-SEP-1999; 28-SEP-1998; 06-APR-2000 WO200018394-A1 Reverse PCR (UYJO) UNIV Ğ primer JOHNS HOPKINS 98US-0102186P 99WO-US022415 for mPMP70 gene amplification 1.8%; DB 1; Length 20,

Query Match Best Local S Matches 16 511 CCAGTTTGGCATTTGGGA 528 19 l Similarity CCAGTTTGCCATTTTGGA Conservative 88.9%; N 0, Score 14.8; Pred. No. 2. Mismatches 2.6e+02 0, Gaps

0

RESULT 184 AAF55880/c ID AAF558 Unidentified Vaccine; immunostimulator; interleukin-2; IL-2; ss Linker #5. 12-APR-2001 AAF55880; AAF55880 standard; (first entry) DNA; 20

18-JAN-2001

WC200104271-A2

12-JUL-2000; 2000WO-US019042

13-JUL-1999; 99US-0143425P

(USSH)

SD

DEPT HEALTH

ξ,

HUMAN SERVICES

```
RESULT 185
ABA91744
ID ABA917
XX ABA917
XX AFADi
XX AFADi
XX AFADi
XX Cleav
XX Prime
OS AFAD
OS AFAD
XX AFAD
OS AFAD
XX AFAD
XX BP 05-(
XX O8-
PR 08-
PR 29-
XX O8-
PR 29-
XX (RE
XX (RE
XX NC
PT AC
PT AC
PT AC
PT AC
PT AC
PT AC
PT CC C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                 08-JUN-2000;
26-FEB-2001;
29-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to an infectious recombinant Respiratory Syncytial Virus (RSV), comprising a recombinant RSV genome or antigenome, incorporating a heterologous polynucleotide encoding an immune modulatory molecule (e.g. interleukin-2; IL-2), a major nucleocapsid protein, nucleocapsid phosphoprotein, large polymerase protein and a RNA polymerase elongation factor. The rRSV pelicits a protective immune response to RSV in a vaccinated host. The present sequence is a linker used in the construction of the rRSV of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Recombinant respiratory syncytial virus heterologous polynucleotide encoding an used as a vaccine to provide an immune r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 5 A; 4 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 27; 154pp;
                                                              Novel isolated HY2 family bilin reductase having bilin reductase activity, useful for converting biliverdin to phytobilin, and for producing a photoactive holophytochrome and/or phytofluors.
                                                                                                                                                                                                                                                   05-JUN-2001; 2001WO-US018326
                                                                                                                                                                                                                                                                                                                                                         primer;
                                                                                                                                                                                                                                                                                                                                                                                  HY2; biliverdin
                                                                                                                                                                                                                                                                                                                                                                                                           Arabidopsis chromosome 3 CAPS marker cMZB10.18 (HY2) PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                      07-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABA91744 standard; DNA; 20 BP
                                                                                                                       WPI; 2002-195566/25.
                                                                                                                                                                                                                                                                              13-DEC-2001.
                                                                                                                                                                                                                                                                                                                               Arabidopsis thaliana.
                                                                                                                                                                         (REGC ) UNIV
                                                                                                                                                                                                                                                                                                                                                                      leaved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 157 CATACTIGCACCATCCCG 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ΡL,
                                                                                                                                                                                                                                                                                                                                                             amplified polymorrh
                                                                                                                                                                                                                                                                                                                                                         88.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                               JС,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATATTTGCCCCATCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukreyev
                                                                                                                                                                                                 2000US-0210286P.
2001US-0271758P.
2001US-00870406.
                                                                                                                                                                         CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry
                                                                                                                                               Kochi T,
                                                                                                                                                                                                                                                                                                                                                                   eductase; phytochromobilin synthase;
polymorphic sequence; marker; plant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P
                                                                                                                                               Frankenberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Murphy BR, Whitehead SS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14.8;
No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         No.
                                                                                                                                               'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 an immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      response to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (RSV) incorporating a immune modulatory molecule is
                                                                                                                                                Gambetta GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .6e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2;
                                                                                                                                                                                                                                                                                                                                                                      plant; enzyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RSV.
                                                                                                                                                                                                                                                                                                                                                                                    CAPS;
                                                                                                                                                Montgomery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

The present sequence is that given in ABA91743, in the PC

the PCR

of a primer that was used, with the primer R amplification of the cleaved amplified

The invention relates to a method for transporting a polypeptide into the nucleus of a cell, comprising expressing a phytochrome comprising the polypeptide attached to the apoprotein component of the phytochrome in a cell, and exposing the cell to light where the phytochrome migrattes from the cytoplasm of the cell into the nucleus which transports the polypeptide into the nucleus. The invention also relates to regulating the transcription of a gene in response to light comprising expressing a phytochrome containing a heterologous transactivator or repressor attached to an apoprotein component of the phytochrome in a cell, and expossing the cell to light where the phytochrome migrates from the

Example 1; Page 53; 102pp; English

into the

nucleus.

component

0f

Example 1; Page 49; 102pp; English.

```
RESULT 186
ABX500
XX
ABX500
XX
ABX500
XX
ABX500
XX
Thale
XX
Thale
XX
Thale
XX
Thale
XX
ARABID
DE TABE
XX
ARABID
DE TABE
XX
THALE
XX
ARABID
DE TABE
XX
ARABID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Arabidopsis thallana. The primer pair includes a Ddel restriction endonuclease site. An hy2-1 mutant of ecotype Landsberg erecta was outcrossed with wild-type ecotype Columbia, and a mapping population was selected from F2 families with a long hypocotyl phenotype. PCR primer pairs (see ABA91735-48) for 7 CAPS markers were used in a map-based cloning of the HY2 gene. The HY2 locus was initially mapped to an interval of about 66 kb between the markers cMZB10 and cF3124. Fine mapping localised the HY2 gene (see ABA91766) to 2 overlapping bacterial artificial chromosome clones, MZB10.18 and F3124. The HY2 gene encodes a ferredoxin-dependent biliverdin reductase, phytochromobilin synthase (see ABA95863), that is related to a family of proteins found in oxygenic photosynthetic bacteria. HY2 is an example of HY bilin reductases of the invention, which are useful e.g. for the conversion of biliverdin to phytobilin and the assembly of holophytochromes or phytofluors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Thale cress; PCR; primer; ss; nucleus; phytochrome; cytoplasm; heterologous transactivator; heterologous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arabidopsis thaliana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABX50049;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABX50049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polymorphic sequence (CAPS) marker cMZB10.18 of chromosome 3 of
                                                                                                                                                                                                                                                                                                                                                                                          Transporting a polypeptide into the nucleus of a light to transport a polypeptide attached to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200297137-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-MAY-2001; 2001US-0294463P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-MAY-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2003-041421/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 CATGGGAAAGTCTGCAAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ďς,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATGGGAAAGACTGCAGA 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP; 7 A; 4 C; 5 G; 4 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HY2 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002WO-US017266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kochi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Frankenberg N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 14.8; DB 1;
Pred. No. 2.6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gambetta GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                cell comprises using apoprotein component
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Montgomery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>۰</u>
```

0

```
RESULT 187
ABZ92516
ID ABZ925
XX ABZ925
XX ABZ925
XX Homan
CX Human
XX Human
XX Human
XX Homo E
XX W2002
XX Homo E
XX W2002
XX Homo E
XX W2002
XX Homo E
XX W21-CC
PD 31-OCT
PF 23-APF
XX LEPIG
XX WPI;
PT COTTE
PR WHI;
PT respi:
CC first
CC first
CC first
CC The i.
CC
CC first active agent comprising an oligonuclectide antisense to the cinitiation codon, coding region, 5' or 3' end genomic flanking regions, CC 5' and 3' intron-exon junctions, or regions within 2-10 nuclectides of cC junctions of genes encoding a polypeptide associated with lung and/or cc nasal airway dysfunction and a second active agent comprising an cc antiinflammatory steroid and ubiquinone. A composition of the invention cc has antiinflammatory, antiallergic, antiasthmatic, hypotensive, cc immunosuppressive, and cytostatic activity. The composition may have a cuse in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also antiinflammatory steroid in a subject, for reducing or depleting levels of, or reducing sensitivity to adenosine, reducing levels of adenosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ន្តន្តន្តន្តន្ត្
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nyce JW,
Miller S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; antisense; lung dysfunction; nasal airway dysfunction; antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-229219/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-APR-2001; 2001US-0286137P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-APR-2002; 2002WO-US013135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200285308-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human oligonucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cytoplasm of the cell into the nucleus and the transactivator or repressor alters expression of a gene in the nucleus. The methods are used to transport a polypeptide into the nucleus of a cell or to regulate the transcription of a gene in response to light. This sequence represents a PCR primer used to amplify DNA used in the scope of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABZ92516 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (EPIG-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inflammation; respiratory disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EPIGENESIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGGAAAGACTGCAGA 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Li Y,
Tang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATGGGAAAGTCTGCAAA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 7758; 872pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sandrasagra A,
Shahabuddin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ທ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G; 4 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 14.8;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Katz
S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                   English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0 Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pabalan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aguilar D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

```
RESULT 188
ABZ97798/c
ABZ97798/c
ABZ97798/c
AC ABZ977
XX ABZ977
XX Human;
AC ABZ977
XX Human;
AC ABZ97
XX Human;
AC ABZ977
XX Human;
AC ABZ97
XX Human;
AC ABZ9
CX
The invention relates to a novel pharmaceutical composition, which has a CC first active agent comprising an oligonuclectide antisense to the CC initiation codon, coding region, 5, or 3, end genomic flanking regions, 5 or 3, end genomic flanking regions, 6 or regions within 2-10 muclectides of 5 or casal airway dysfunction and a second active agent comprising an CC antiinflammatory steroid and biquinone. A composition of the invention CC immunosuppressive, and cytostatic activity. The composition may have a CC immunosuppressive, and cytostatic activity. The composition may have a CC immunosuppressive, and cytostatic activity. The composition is useful for treating or CC preventing a respiratory, lung or malignant disease or condition, also CC preventing a respiratory, lung or malignant disease or depleting levels of or reducing the prophylactic or therapeutic respiratory effect of an antisensory steroid in a subject, for reducing or depleting levels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ននិនិនិនិនិនិ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7798/c
ABZ97798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; antisense; lung dysfunction; nasal airway dysfunction; antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     receptor, producing bronchodilation, increasing levels of ubiquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence data for this parent is not represented in the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; SEQ ID NO 13040; 872pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ubiquinone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-229219/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-APR-2001; 2001US-0286137P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-APR-2002; 2002WO-US013135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-OCT-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200285308-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human CCR3 oligonucleotide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (EPIG-) EPIGENESIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          υ JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity
16; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Li Y, Sa
Tang L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCTGGTACTGTGGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCTGGTACTGAAGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 BP; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.8%; ilarity 88.9%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sandrasagra A,
L, Shahabuddin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; 6 C; 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G; 4 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 14.8; I
Pred. No. 2.6e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Katz
S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pabalan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aguilar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ŭ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
```

នួននួននួន

멂 Ş

 q_{ij}

```
ADBIGOTOT :
ADBIGOTOT :
ADBIGOTOT :
ADBIGOTOT :
ACCOMPANIES :
ACCOMPANIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-JUN-1993;
06-JUN-1994;
09-NOV-1994;
09-MAR-1995;
07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         receptor, producing bronchodilation, increasing levels of ubiquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO
The invention relates to a method of detecting and identifying strains microorganisms by providing a nuclease and a nucleic acid substrate containing sequences derived from microorganism(s), treating the nuclei acid substrate to form cleavage structure(s) and reacting the nuclease with the cleavage structures so that cleavage product(s) are produced. The method is used for the identification of strains of microorganisms. The microorganism comprises bacteria including Campylobacter,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-AUG-1995;
06-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cleavase BN DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         simian immunodeficiency virus; Mycobacterium tuberculosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shigella;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ss; PCR; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADB16204
                                                                                                                                                                                                   Example 12;
                                                                                                                                                                                                                                                                                                         Identification of
                                                                                                                                                                                                                                                                                                                                                                                                      Dahlberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-FEB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                         2003-615811/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           832 AAGCTGGTACCAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ) DAHLBERG J E.
) BROW M A D.
) LYAMICHEV V I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                                                                                      products(s)
                                                                                                                                                                                                                                                                                                                                                                                                      JE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCTGATACCAGAGCAC
                                                                                                                                                                                                                                                                              structure(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 primer; DNA polymerase; microorganism strain identifica
Campylobacter; Escherichia; Mycobacterium; Salmonella;
Staphylococcus; virus; hepatitis C virus;
                                                                                                                                                                                                   Page 134; 303pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-00940925.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-00655378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92US-00986330
93US-00073384.
94US-00337164.
95US-00402601.
95US-00402601.
95US-00484956.
95US-00789079.
97US-00789079.
                                                                                                                                                                                                                                                                                                                                                                                                         Brow MAD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       substrate
                                                                                                                                                                                                                                                 strains of microorganisms, by treating e(s) derived from microorganisms with nu (s) and detecting the product(s).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; 4 C; 5 G; 8 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                      Lyamichev
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14.8;
No. 2
                                                                                                                                                                                                                                                                                                                                                                                                         ۷I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .6e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                 ng nucleic
nuclease t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                 c acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                        nucleic
                                                                                                                                                                                                                                                                                   form
                                                                                                                                                        e
f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

```
និស្សិត្តិស្តិត្តិនិង្ស
                                                                      밁
                                                                                            5
                                                                                                                            Query Match
Best Local S
Matches 16
                                                                                                                                                                                                           Escherichia, Mycobacterium, Salmonella, Shigella or Staphylococcus or virus comprising hepatitis C virus or simian immunodeficiency virus. The Mycobacterium comprises strains of multi-drug resistant Mycobacterium tuberculosis. The method is less sensitive to size so that entire gene rather than gene fragments, may be analysed. It facilitates the use of internal standards for subsequent analysis and data comparison, and increases the productivity of personnel and equipment. The present sequence represents a Cleavase BN substrate PCR primer.
ADC81599
                                                                                                 510
                                                                                                                              16;
                                                                      1 GCAAGTTTGGCTTTTGGG
                                                                                                                                            Similarity
                                                                                                                                                                                     20
standard; DNA;
                                                                                                 GCCAGTTTGGCATTTGGG 527
                                                                                                                                                                                   BP;
                                                                                                                              Conservative
                                                                                                                                                                                   w
                                                                                                                                                                                     A.
                                                                                                                                                                                     2 C;
                                                                                                                                          1.8%;
88.9%;
 20
                                                                                                                                                                                     8 G;
 ВP
                                                                      18
                                                                                                                            0
                                                                                                                                          Score 14.8;
Pred. No. 2.
                                                                                                                                                                                      7 T;
                                                                                                                              Mismatches
                                                                                                                                                                                      0
                                                                                                                                                                                     <u>:</u>
                                                                                                                                                                                                                                                                                                                 Shigella or Staphylococcus or a
                                                                                                                                            DB 1;
                                                                                                                                                                                      0 Other;
                                                                                                                                                        Length
                                                                                                                               Indels
                                                                                                                           0
                                                                                                                               Gaps
                                                                                                                                                                                                                                                                          genes,
                                                                                                                                                                                                                                                                                                     The
                                                                                                                               0
```

RESULT 190
ADC81599/c
ID ADC815
XX ADC815
XX ADC815
XX ADC815
XX ADC815
XX Neurod
KW Neurod
KW LXR an
KW CNS in
KW cerebr
XW dementic
KW dementic
KW amyotr
XW cransi
XW primer
XW cransi
XW primer
XX CNS in
KW cransi
XX O9-OCT
XX 09-OCT
XX 09-OCT
XX 156-MAR
XX 157-MAR
XX 157-MAR
XX 158-MAR
XX 158-Neurodegenerative disorder; liver X receptor; LXR modulator; LXR ag LXR antagonist; cholesterol efflux promoter; neuroregeneration; neurological disorder; stroke; Alzheimer's disease; Parkinson's dis fronto-temporal dementia; peripheral neuropathy; dementia with Lewy bodies; Huntington's disease; amyotrophic lateral sclerosis; multiple sclerosis; neuronal degener CNS inflammation; impaired plasticity; psychiatric disorder; schizophrenia; depression, brain injury; spinal cord injury; trauma cerebroprotective; nootropic; neuroprotective; antidepressant; vuln transient middle cerebral artery occlusion; tMCAO; rat; LXR-alpha; Rattus SS degeneration; trauma; LXR agonist; disease;

01-JAN-2004 ADC81599;

(first entry) right

PCR primer.

WO2003082198-A2

26-MAR-2003; 2003WO-US009225

27-MAR-2002; 2002US-0368424P

(SMIK) SMITHKLINE BEECHAM CORP.

Cairns WJ, 1 Irving EA, Vinson M, Parsons Watson MA AA Soden PE, Whitney K; Richardson

Alzheimer's disease, amyotrophic lateral degeneration. of liver X receptor modulator in the treatment of e.g. stroke disease, peripheral neuropathy, Huntington's disease, lateral sclerosis and multiple sclerosis, neuron stroke,

7; SEQ IJ ö 6; 100pp; English.

The invention relates to a method for the treatment of neurodegenerative disorders involving the use of a liver X receptor (LXR) modulator. The invention also relates to a method for promoting cholesterol efflux from an astroglial cell using an LXR modulator. LXR-alpha (ADC81595) and LXR-beta (ADC81597) (collectively LXR) are nuclear receptor transcription factors that regulate the expression of a number of target genes encoding

```
RESULT 191
AAQ24704/c
ID AAQ247
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CC proteins involved in the metabolism of several important lipids,
CC including cholesterol. The LXR target genes include those encoding the
CC cholesterol metabolism-associated proteins ATP binding cassette
CC transcription factor SREHPIC, all of which are expressed in central
CC transcription factor SREHPIC, all of which are expressed in central
CC nervous system (CNS) tissue. LXR plays a role in the growth and repair of
CC neurons, as well as in cholesterol regulation, as administration of LXR
CC agonists enhances neurite outgrowth in hippocampal and cortical neurons,
CC limits the inflammatory response in microglial cells and upregulates the
CC expression of LXR target genes in glial cells. LXR agonist administration
CC also leads to increased cholesterol efflux from astrocytes and may thus
CC promote synaptic plasticity. Additionally LXR activators have been found
CC to induce neuronal differentiation in pheochromocytoma cells, and LXR
CC markh has been found to be upregulated following transient middle cerebral
CC treatment of neurological disorders such as stroke, Alzheimer's disease,
CC Parkinson's disease, fronto-temporal dementia, peripheral neuropathy,
CC dementia with few hodies. Huntington's disease amvortorshic lateral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-MAR-2003
17-DEC-2001
10-NOV-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Parkinson's disease, fronto-temporal dementia, peripheral neuropatny, dementia with Lewy bodies, Huntington's disease, anyotrophic lateral sclerosis, multiple sclerosis, neuronal degeneration, inflammation in the CNS, injury or impaired plasticity, psychiatric disorders such as schizophrenia or depression, and conditions associated with head or spinal cord injury such as trauma. Sequences ADC81598-ADC81599 represent rat LXR-alpha PCR primers used in an example of the invention that demonstrated that LXR-alpha mRNA levels are elevated following transient middle cerebral artery occlusion (tMCAO) in rats.
                genomic instability.
                                  Identifying individuals at increased risk of lymphoid leukemia and lymphoma - using DNA from immune receptor locus capable of displaying
                                                                                          WPI; 1992-166775/20
                                                                                                                                                                                                         11-APR-1991;
                                                                                                                                                                                                                                           11-APR-1991;
                                                                                                                                                                                                                                                                                  18-FEB-1992
                                                                                                                                                                                                                                                                                                                        USN7683685-N
                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                 lymphoid
                                                                                                                                                                                                                                                                                                                                                                                                                                     Inv(7);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         V-beta-a primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAQ24704;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAQ24704 standard; DNA; 21 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20 BP; 3 A; 5 C; 7 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                     (USSH ) US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16;
                                                                                                                               IR,
                                                                                                                                                                                                                                                                                                                                                                                                                                   PCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                 PCR; polymerase chain reaction; ataxiatelangiectasia; AT; malignancy; pesticide; herbicide; Nijmegan breakage synd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACGCAGCTGAAGCTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATGCAGCTGAAGCTCAC 679
                                                                                                                                                                   DEPT HEALTH & HUMAN SERVICE
                                                                                                                                 Lipkowitz S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (revised)
(revised)
(first entry)
                                                                                                                                                                                                         91US-00683685
                                                                                                                                                                                                                                                91US-00683685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           щ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 14.8; DB 1
Pred. No. 2.6e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                 H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                   syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
```

```
RESULT 192
AAX60141
   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The sequences given in AAQ24701-Q24713 are a set of PCR primers which are C complementary to a sequence within a 2000bp inversion of chromosome 7 cr. This inversion (inv(7) (p14935)) is found in normal people but patients continered inversion from the disease ataxiatelangiectasia (AT) have a 70-100 fold concrease of the T-lymphocyte specific inversion inv(7). Using these concerns a screening test has been developed which can accurately comeasure lymphocyte-specific genomic instability and by extrapolation thus didentifies individuals at increased risk for the development of lymphoid contains a single property of the set of the development of lymphoid contains be used for identifying (specifically pre-natal) an individual chamazygous or heterozygous for AT and related syndromes (eg Nijmegan compounds or for identifying carcinogenic compounds. (Note: Revised entry submitted to correct the patent number format of US covernment-owned NTIS applications to prevent clashes with ongoing US correct web site at www.derwent.com/dwpi/updates/ntis_us.html.) (Updated on 25-WAR-2003 to correct PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 16
PCR primers AAX60140-41 were used to amplify DNA encoding a Mycoplasma hyopneumoniae P102 protein clone. The P102 protein and its fragments are used in vaccines to protein adenst enzovtic pneumonia, particularly in swine. Recombinant P102 polypeptides may be used as antigens for diagnostic purposes to determine whether or not a biological test sample contains M. hyponeumoniae antigens or antibodies. The P102 polypeptides or DNA sequences may also be used for immunising or protecting non-human animals, preferably swine, against M. hyponeumoniae infections,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 21
                                                                                                                                                       Example
                                                                                                                                                                                        Recombinant antigenic Mycoplasma hyponeumoniae protein
                                                                                                                                                                                                                         WPI; 1999-357741/30.
                                                                                                                                                                                                                                                             Minion
                                                                                                                                                                                                                                                                                                                              26-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                             24-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                               03-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                               WO9926664-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               enzootic pneumonia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P102 protein; vaccine; antigen; diagnosis; swine; immunisation;
enzootic pneumonia; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCR primer used to amplify Mycoplasma hyopneumoniae P102 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAX60141 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 15; 55pp; English
                                                                                                                                                                                                                                                                                          (IOWA ) UNIV IOWA STATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          834 GCTGGTACCAGAACACAG 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16; Conserv
                                                                                                                                                                                                                                                           FC,
                                                                                                                                                      2; Page 23; 45pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTTGGTACCAGTACACAG 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                              97US-0066565P
                                                                                                                                                                                                                                                                                                                                                              98WO-US025044.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 A;
                                                                                                                                                                                                                                                         Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 primer;
                                                                                                                                                                                                                                                                                             RES FOUND INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 14.8;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2.8e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
```

Query Match

SXS

Matches

à

```
pck primers AAP79931-36 were used to amplify cDNA encoding GL50 polypeptides. GL50 molecules are antigens on the surface of antigen persenting cells, which ostimulate T cell proliferation and bind to costimulate to a subject. GL50 modulating agents are used to modulate an immune response in a subject. GL50 polypeptides are a tumour cell. Diseases that can be treated using GL50 molecules are graft-versus-host disease, autoimmune disease, allergies, acquired immune deficiency syndrome (AIDS), and viral infections. The GL50 molecules can be used in vaccines. GL50 polymucleotides can be used in vaccines. GL50 polymucleotides can be used in vaccines disease, in tissue typing, and in forensic identification of a biological sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GL50; antigen; antigen presenting cell; T cell proliferation; tumour; graft-versus-host disease; autoimmune disease; allergy; viral infection; acquired immune deficiency syndrome; AIDS; vaccine; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated nucleic acid encoding a GLSO polypeptide for modulating a immune response and reducing the proliferation of a tumor cell.
                                                                                                                                                                                                                  3L50; antigen; antigen presenting cell; T cell proliferation; tumour;
                                                                                                                                                                                                                                            graft-versus-host disease; autoimmune disease; allergy; viral infec
acquired immune deficiency syndrome; AIDS; vaccine; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCR primer used to amplify human and murine GL50 cDNA sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.8%; Score 14.8; DB 1; Length 22;
Similarity 88.9%; Pred. No. 3e+02;
16; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                        PCR primer used to amplify murine GL50 cDNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seguence 22 BP; 6 A; 8 C; 6 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 118; 195pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      봈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         404 CCTGCTCCAGCAGGCTCT 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ling V, Dunussi-Joannopolulos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВР
                                           ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                         21-SEP-2000; 2000WO-US025892.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-SEP-1999; 99US-0155043P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21 CCTGGTCCAGCAGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         925/c
AAF79925 standard; DNA; 22
                           934/c
AAF79934 standard; DNA; 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GEMY ) GENETICS INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-244938/25.
                                                                                                                                                                                                                                                                                                                                                    WO200121796-A2.
                                                                                                                                                                                                                                                                                                          Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mac
Local Sim
16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                29-MAR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAF79925;
                                                                                   AAF79934;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                         AAF79934/
                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This sequence represents a PCR primer for DNA encoding the human lysosomal stalidase of the invention. The amplified DNA is used as a reference to identify mutations that cause sialidosis or similar disease and for chromosome mapping. The protein is used: (1) for treating lysosomal storage diseases (stalidosis, Tay-Sachs disease or Sandhof disease); (11) to screen for agents useful against viral stalidase (potentially useful as antiviral agents without side effects on the human enzyme); (iii) for disesting stalylated oligosaccharides or glycolipids in milk; and (1v) when inactivated, as antiviral agents (by binding to surface stalic acid with high affinity, so preventing binding of virus to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New human lysosomal sialidase and related nucleic acid - used to detect mutation(s) that cause sialidosis and similar disease, also for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lysosomal sialidase; human; sialidosis; lysosomal storage disease; Sandhof disease; mutation detection; Tay-Sachs disease; therapy;
                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.8%; Score 14.8; DB 1; Length 22;
88.9%; Pred. No. 3e+02;
iive 0; Mismatches 2; Indels
                                                                                   1.8%; Score 14.8; DB 1; Length 21;
88.9%; Pred. No. 2.8e+02;
iive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCR primer for human lysosomal sialidase coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   these diseases and screening for antiviral agents.
                                           Sequence 21 BP; 8 A; 2 C; 5 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 22 BP; 4 A; 4 C; 7 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 12; 30pp; English
                                                                                                                                                                           905 TTTTAAGTGAAAAGACAG 922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  479 TGGCATTCCTCAGGATCT 496
particularly enzootic pneumonia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HOPI-) HOPITAL SAINTE-JUSTINE.
                                                                                                                                                                                                                1 Trgradgigadadgccag 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-CA000026.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97US-0035092P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCATTCATCAGGATTT
                                                                                                                                                                                                                                                                                                                               AAV44801 standard; DNA; 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Potier M, Pshezhetsky AV;
                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                        Local Similarity 88.9
Les 16, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 88.9
es 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1998-414113/35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9831817-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                     16-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-JUL-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                           AAV44801;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
```

ANA44801

ANA44801

ANA44801

ANA44801

ANA ANA44801

ANA ANA44801

DIT 16-OCT

XX ANA LYSOSO

KW BANGHOO S

KW BORD PL

XX ANA BANGHOO S

KW BORD PL

XX ANA BANGHOO S

COS HOME S

COS THIS THIS S

COS THIS S

COS THIS THIS S

COS THIS THIS S

CO

Best Loca Matches

ð

0

Gaps

ö

93US-00077788

```
01-DEC-1989;
27-NOV-1990;
15-JUN-1992;
15-JUN-1993;
15-JUN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US5741957-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-APR-1998
                                                                                                                     Heyneker HL
Pieper F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAV23577;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV23577/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HERE EX LEX SON SERVICE TO THE SERVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCR primers AAF79922-27 were used to amplify sequences from the 3' end of cDNA encoding human and murine GL50 polypeptides. GL50 molecules are antigens on the surface of antigen presenting cells, which costimulate T cell proliferation and bind to costimulatory receptor ligands on T cells. Outso modulating agents are used to modulate an immune response in a subject. GL50 polypeptides are used to modulate an immune response in a to reduce the proliferation of a tumour cell. Diseases that can be treated using GL50 molecules are graft-versus-host disease, autoimmune disease, allergies, acquired immune deficiency syndrome (AIDS), and viral infections. The GL50 molecules can be used in vaccines (GL50 polymucleotides can be used in vaccines (GL50 polymucleotides can be used to locate gene regions associated with genetic disease, in tissue typing, and in forensic identification of a biological sample
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New isolated nucleic acid encoding a GL50 polypeptide for modulating a immune response and reducing the proliferation of a tumor cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; lactoferrin; transgenic bovine; ovum; bovine; ovary; zygote;
transgene; pre-implantation stage embryo; milk; milk protein;
serum protein; industrial enzyme; alpha-Sl casein; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3' Primer detects human lactoferrin gene expression in saliva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.8%; Score 14.8; DB 1; Length 22;
88.9%; Pred. No. 3e+02;
tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 22 BP; 6 A; 8 C; 6 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 117; 195pp; English
                                                                                                                                                                                                                                                                                                                                                                                                       Ling V, Dunussi-Joannopolulos K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          404 CCTGCTCCAGCAGGCTCT 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89US-00444745.
90US-00619131.
92US-00898956.
                                                                                                                                                                                                                       21-SEP-2000; 2000WO-US025892.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93US-00154019
                                                                                                                                                                                                                                                                                 99US-0155043P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21 CCTGGTCCAGCAGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAT77751 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                            (GEMY ) GENETICS INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-244938/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
ses 16; Conserv
                                                                                              WO200121796-A2
                                          Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-DEC-1989;
27-NOV-1990;
15-JUN-1992;
      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .6-NOV-1993;
                                                                                                                                                                                                                                                                                     21-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAR-2003
26-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US5633076-A
                                                                                                                                                            29-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAT77751;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 196
AAT77751/c
      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              THE STATE OF THE S
```

```
The sequences given in AAT77750-51 are primers which were used in the detection of expression of a human lactoferrin transgene in the saliva of mosaic animals produced by the method of the invention. The method of the invention comprises obtaining an ovum from bovine ovaries, maturing it in vitro, fertilising the mature ovum in vitro to form a zygote, introducing a transgene into the zygote in vitro where the transgene integrates into the genome of the zygote to form a transgenic embryo, maturing the embryo to preimplantation stage embryo in vitro, and transgenic the embryo in vitro, and transgenic to a preimplantation stage embryo in vitro, and transgenic transgenic contine. The method may also be used to generate transgenic transgenic bovine. The method may also be used to generate transgenic cover expected recombinant proteins in their milk from the transgenic cows containing the recombinant polypeptides may be used the transgenic cows containing the recombinant polypeptides from the transgenic milk. The production of transgenic bovine milk containing one transgenic milk. The production of transgenic bovine milk containing one transgenic milk. The production of transgenic bovine milk containing one or more recombinant polypeptides from the transgenic milk. The production of transgenic bovine milk containing one or more recombinant polypeptides is desirable since it provides a matrix wherein little or no purification is necessary for human consumption.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          o.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Transgenic bovine, mammary gland specific promoter, milk protein, human, mammary secretory cell, lactoferrin, serum protein lysozyme, cow, PCR primer, alphaS1-casein, ss.
                                                                                                                                                                                                                                                        Production of transgenic bovine embryo - by introducing trans:gene into fertilised ovum in vitro.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                 ö
                                                                     Platenburg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        / Match 1.7%; Score 14.6; DB 1; Length 21; Local Similarity 81.0%; Pred. No. 3.1e+02; nes 17; Conservative 0; Mismatches 4: Indels
                                                                     Lee SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 21 BP; 3 A; 7 C; 2 G; 9 T; 0 U; 0 Other;
                                                                 Krimpenfort PJA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   766 CAGAACTGGAGAAGAGTGTG 786
                                                                                                                                                                                                                                                                                                                                                                                  Example 26; Col 58; 91pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Primer for lactoferrin transgene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21 CAGAACTTGAGGAAAAGTGAG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAV23577 standard; DNA; 21 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90US-00619131.
92US-00898956.
93US-00077788.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95US-00461333.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89US-00444745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-JUL-1998 (first entry)
                                                                         Ħ,
                                                                     HL, Deboo.
(PHAR-) PHARMING BV.
                                                                                                                                                                                  WPI; 1997-297339/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JUN-1995;
```

Fri

```
This sequence represents a primer for a human lactoferrin transgene. The amplified sequence can be used in the transgenic bovine of the invention. The bovine contains in its somatic and germ cells contain a transgene comprising: (a) a mammary gland specific promoter and enhancer; (b) a DNA sequence encoding a signal sequence functional in bovine mammary gland sequence exceptors cells; and (c) a DNA sequence comprising a heterologous polypeptide of interest. Where the transgenic bovine or a female descendant of it expresses the transgenic in mammary secretory cells so that the polypeptide is detectable in milk produced by the transgenic bovine or its descendant. The transgenic bovine is useful for the recombinant production of the human milk protein lactoferrin and the human serum protein lysozyme in its milk for use in pharmaceuticals and in finant formulae. The levels of transgenic protein secreted by the transgenic bovine in its milk are higher than that produced by transgenic sheep and mice. As the proteins are produced in the milk of the cow, they require little or no purification for human consumption
                                                                                                                                                                                                              Transgenic bovine useful for the production of heterologous proteins in its milk - contains a transgene linked to bovine secretory signal and is under the control of a mammary gland specific promoter and enhancer.
                                                                                             Lee SH;
                                                                                             Ö
                                                                                             Platenburg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 21 BP; 3 A; 7 C; 2 G; 9 T; 0 U; 0 Other;
                                                                                             Deboer HA,
                                                                                                                                                                                                                                                                                                                 Example 26; Col 58; 92pp; English.
                                                                                          Heyneker HL, Krimpenfort PJA,
Pieper F, Strijker R;
93US-00154019
                                                                                                                                                                     WPI; 1998-260573/23.
                                              (PHAR-) PHARMING BV
16-NOV-1993;
```

Gaps .. 0 Query Match 1.7%; Score 14.6; DB 1; Length 21; Best Local Similarity 81.0%; Pred. No. 3.1e+02; Matches 17; Conservative 0; Mismatches 4; Indels 766 CAGAACTGGAGAAGAGTGTG 786 CAGAACTTGAGGAAAAGTGAG 1 21

ö

Gene polymorphism; human; Vth aggregation factor; genetic diagnosis; diabetes; FPCR; SSCP; fluorescence-based polymerase chain reaction; single strand conformation polymorphism; PCR primer; ss. Human Vth aggregation factor gene specific FPCR-SSCP primer. BP. AAZ39679 standard; DNA; 21 (first entry) Homo sapiens, 28-FEB-2000 Synthetic. AAZ39679; AAZ39679

98JP-00120217 98JP-00120217 CO LID (SAKA) OTSUKA PHARM JP11313676-A 30-APR-1998; 30-APR-1998; 16-NOV-1999

Discrimination of human V aggregation factor gene polymorphism.

WPI; 2000-057352/05.

The invention provides a method for the discrimination of the gene polymorphism of human Vth aggregation factor, where one of the following (1) to (6) residues/nuclectides in the aggregation gene is discriminated in the patient to be tested: (1) residue 495: guanine (G) or adenine (A) (2) residue 642: (G) or thymine (T), (3) residue 2663: (G) or (A), (4) residue 2763: (G) or (A), (5) residue 2863: (A) or (G), (6) residue 5112: (A) or (G). The method is useful in the genetic diagnosis of a diabetes patient. The method uses FPCR-SSCP (fluorescence-based polymerase chain reaction-single strand conformation polymorphism) for analyzing DNA samples for polymorphisms. Sequences AA239632-717 represent primers used for the FPCR-SSCP analysis of the human Vth aggregation factor gene Sequence 21 BP; 3 A; 1 C; 7 G; 10 T; 0 U; 0 Other; Disclosure; Page 10; 34pp; Japanese. ***************************

.; 0 21; 4; Indels Query Match 1.7%; Score 14.6; DB 1; Length Best Local Similarity 81.0%; Pred. No. 3.1e+02; Matches 17; Conservative 0; Mismatches 4; Indels

ö

Gaps

21 1 Agricrichantriregies ВР 631/c AAZ87631 standard; DNA; 21 RESULT 199 AAZ87631/c 셤 ò

(first entry)

04-MAY-2000

AAZ87631;

280 AGTIGITGAAACTIGIAGICG 300

Transgenic bovine; transgene; milk; serum protein; industrial enzyme; infant formulation; lactoferrin; intestinal tract infection; lysozyme; iron absorption; albumin; antibacterial; iron sequestration; PCR primer; Human lactoferrin gene specific primer.

89US-00444745. 90US-00619131. 92US-00898956. 93US-00077788. 95US-00464167. (PHAR-) PHARMING BV. Homo sapiens. 16-NOV-1993; 05-JUN-1995; JS6013857-A. 11-JAN-2000 01-DEC-1989; 27-NOV-1990; .5-JUN-1992

Lee Krimpenfort PJA, Platenburg G, Heyneker HL, Strijker R; WPI; 2000-146563/13. Deboer HA, Pieper F, S

Transgenic cattle containing transgene controlled by mammary-specific regulator, for expressing proteins in the milk, particularly human lactoferrin for infant feeding formulations. Example 26; Col 57; 92pp; English. The invention provides a transgenic bovine in which the somatic and germ cells contain a transgene comprising a regulatory sequence from a gene expressed in mammary glands, DNA encoding a signal sequence and DNA encoding a naturally occurring heterologous polypeptide. The transgenic bovine, or its descendants, produce milk containing the heterologous

```
polypeptide. The transgenic bovines are used to express human milk and serum proteins or industrial enzymes, specifically for infant formulations that contain human latoferrin for control of intestinal tract infections and to improve iron absorption, particularly when botentiated by human lysozyme. The polypeptide expressed may also be human albumin, used as a plasma extender. The polypeptide expressed in milk of the transgenic bovine requires little if any purification before human consumption and is expressed at significantly higher levels than in transgenic mice or sheep. Large polypeptides that are difficult to express in other systems can also be expressed. Sequences AAZB7630-31 represent human lactoferrin gene specific primers
                                                                                                                                                                                                                                                                                                                                                                                              Sequence 21 BP; 3 A; 7 C; 2 G; 9 T; 0 U; 0 Other;
             88999999999888
```

1.7%; Score 14.6; DB 1; Length 21; 81.0%; Pred. No. 3.1e+02; Indels 4, 0; Mismatches 766 CAGAACTGGAGAAGAGTGTG 786 CAGAACTTGAGGAAAAGTGAG 1 17; Conservative Query Match Best Local Similarity 21 Best Loca Matches

a à

; 0

Gaps

ö

PCR primer used to detect hLF DNA. BP. AAA59929 standard; DNA; 21 (first entry) 16-OCT-2000 AAA59929 RESULT

Lactoferrin, transgenic bovine species, milk, infant formula, PCR primer, alphaS1-casein expression regulatory sequence, ss. 89US-00444745. 90US-00619131. 92US-00898956. 93US-00174788. 93US-00154019. 98US-00158313 21-SEP-1998; US6066725-A 01-DEC-1989 27-NOV-1990 23-MAY-2000 15-JUN-1992

(PHAR-) PHARMING BV.

15-JUN-1993

07-JUN-1995

Krimpenfort PJA, Lee SH, Heyneker HL, Strijker R; Deboer HA, Pieper F, Pieper

Platenburg G;

WPI; 2000-450654/39.

New isolated cDNA sequence encoding the mature human lactoferrin protein, useful for generating higher amounts of lactoferrin in bovine milk, which are beneficial and safe for human consumption.

Example 26; Col 58; 89pp; English.

lactoferrin (hLF) protein. Lactoferrin is the major iron binding protein in human milk, and may play a role in the absorption of iron by the small intestine. The invention concerns the expression of hLF in bovine milk. Included in the invention are methods for the production of transgenic bovine species, which produce milk with high lactoferrin levels. The hLF expression regulation sequence is placed under the control of bovine alphasi-casein expression regulation sequences. The transgenic milk may be either used as normal milk, or further treated to purify the recombinant polypeptide. This invention relates to a cDNA sequence encoding the mature human

Purified hLF obtained from the transgenic cows may be used in food formulations such as infant formula. The methods contained in the invention may be used to obtain milk from transgenic cows which has nutritional or other beneficial value. The advantage of the production of transgenic bovine milk using the isolated lactoferrin cDNA sequence, is that it provides a matrix where little or no purification is necessary prior to human consumption. The present sequence represents a PCR primer specific for human lactoferrin encoding DNA. The primer is used in the course of the invention ö Gaps ; 0 1.7%; Score 14.6; DB 1; Length 21; 81.0%; Pred. No. 3.1e+02; tive 0; Mismatches 4; Indels Seguence 21 BP; 3 A; 7 C; 2 G; 9 T; 0 U; 0 Other; Primer 2 used to amplify lactoferrin gene. 766 CAGAACTGGAGAAGAGTGTG 786 CAGAACTTGAGGAAAAGTGAG 1 AAC68326 standard; DNA; 21 BP 90US-00619131. 92US-00898956. 93US-00077788. 93US-00154019. 95US-00476798 89US-00444745 Lactoferrin; mammary; milk; (first entry) Query Match Best Local Similarity 81.0 Matches 17; Conservative Homo sapiens 07-JUN-1995; 15-JUN-1993; 16-NOV-1993; US6140552-A. 01-DEC-1989; 27-NOV-1990; 31-OCT-2000. 20-FEB-2001 5-JUN-1992 21 AAC68326; RESULT 201 AAC68326, 8888888888888 ઠે qq

The present invention relates to a transgenic or chimeric bovine whose mammary gland cells contain a construct encoding a signal sequence, a polypeptide of interest and construct encoding a signal sequence, a polypeptide of the DNA sequence. The transgenic or chimeric bovine is useful for producing recombinant polypeptides in milk of female transgenic mammals. The recombinant polypeptide may be used in food formulations, particularly in infant formula having either nutritional or beneficial value. An infant formula containing human lactoferrin from the transgenic bovine milk provides bacteriostatic effect, which aids in controlling diarrhoea in newborn. Recombinant polypeptides may also be used to supplement common diet formulations

New transgenic bovine whose mammary gland cells contain DNA encoding a signal sequence, and a polypeptide of interest and an expression regulatory sequence, for producing polypeptides in bovine milk.

Example; Col 56; 88pp; English.

Krimpenfort PJA;

Pieper F,

Platenburg G,

Heyneker HL,

Lee SH,

(PHAR-) PHARMING BV. Strijker R, Heynek Lee SH, Deboer HA; WPI; 2001-040323/05 Sequence 21 BP; 3 A; 7 C; 2 G; 9 T; 0 U; 0 Other;

schu568-1.rng

CCCTGCTCCAGGAGCACCTCC 1

21

ВР

2

ADE76684 standard; DNA;

PCR;

transgene; bovine expression; transgenic bovine; enzyme production; immunoglobulin production; clotting factor production; milk; human; primer; ss; lactoferrin.

Human lactoferrin-related PCR primer SegID27.

(first entry)

29-JAN-2004

ADE76684;

```
ADE76684/
                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cotaxin. The binding member comprises an antibody variable heavy (VH) variable light (VL) domain from CAT-212 VH/VL domain and a VH/VL domain comprising one or more VH/VL complementary determining regions (CDRs). Ectaxin is a chemoattractant protein that binds to a specific receptor which is expressed predominantly on eosinophils. The binding member is useful for neutralising eccarain, which is useful in treating as thms. eczema and other atopic diseases such as rhinitis, food allergy, conjunctivitis, allergic colitis which are recognised as eosinophilon mediated diseases; for treating skin and other atopic conditions such as pooriasis, pemphigoid, wells' syndrome, cellulitis, drug eruptions; inflammatory bowel disease which includes eosinophilic colitis/enteritis/ gastroenteritis/Shulman's syndrome; vasculitis including Hugues-Stovin gastroenteritis/shulman's syndrome. The present sequence is a PCR primer used for converting encoding human antibody CAT-212 (ScFv-single chain cyariable region fragment) to IgG DNA (whole antibody) format
                              ;
0
                                                                                                                                                                                                                                                                  Human, ectaxin, CAT-212, antibody, heavy chain variable region, VH, eczema; asthma; atopic disease; dermatological; rhinitis; food allergy, vasotropic; conjunctivitis; allergic colitis; postrasis; pemphigoid, eosinophil-mediated disease; cellulitis; drug eruption; vasculitis; inflammatory bowel disease; gastroenteritis; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human antibodies against eotaxin useful for treating asthma, eczema and other atopic diseases, comprises an antibody variable heavy or variable light domain from CAT-212 or from complementary determining regions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a specific binding member which binds to human
                              Gaps
                              .
                                                                                                                                                                                                                                           PCR primer P24 to convert human antibody CAT-212 to IgG format.
1.7%; Score 14.6; DB 1; Length 21;
81.0%; Pred. No. 3.1e+02;
tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 21 BP; 3 A; 4 C; 11 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 11; Page 103; 107pp; English.
                                                         766 CAGAACTGGAGAAGAAGTGTG 786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                    21 CAGAACTTGAGGAAAAGTGAG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Smith
                                                                                                                                                          BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                          02-MAR-2001; 2001WO-GB000927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       03-MAR-2000; 2000US-0187246P
                                                                                                                                                         AAD18152 standard; DNA; 21
                                                                                                                                                                                                                18-DEC-2001 (first entry)
               Local Similarity 81.0
les 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vaughan TJ, Wilton AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-589944/66.
                                                                                                                                                                                                                                                                                                                                                                                      WO200166754-A1.
                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                 13-SEP-2001.
                                                                                                                                                                                    AAD18152;
    Query Match
                  Best Loc
Matches
                                                                                                                              RESULT 202
                                                                                                                                           8
```

Lee SH;

Heynecker HL, Platenburg G,

Deboer HA, Strijker R, He Pieper F, Krimpenfort PJA;

WPI; 2003-831830/77.

(PHAR-) PHARMING BV.

89US-00444745. 90US-00619131. 92US-00898956. 93US-00077788. 95US-00154019. 95US-00476798.

27-NOV-1990; 15-JUN-1992; .5-JUN-1993; 16-NOV-1993;

01-DEC-1989

11-JUN-2002; 2002US-00170221.

US2003192068-A1. Homo sapiens.

09-OCT-2003

```
ö
                                                                                                                                                                                                        This invention relates to a novel transgene for producing a recombinant polypeptide in a bovine species comprising at least one expression regulation sequence functional in at least one cell-type of the bovine species, in addition to a gene encoding the desired polypeptide. The transgenes and methods are useful for producing transgenit bovines which produce useful polypeptides (for example enzymes, immunoglobulins, clotting factors), especially in their milk. The present sequence is that of a PCR primer which was used for amplification of the human lactoferrin exemplification of the invention.
New transgenes for producing recombinant polypeptides in transgenic bovine species (especially in milk) comprise at least the protein coding sequence and an expression regulation sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.7%; Score 14.6; DB 1; Length 21;
81.0%; Pred. No. 3.1e+02;
rative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 21 BP; 3 A; 7 C; 2 G; 9 T; 0 U; 0 Other;
                                                                                                                                              Example 26; SEQ ID NO 27; 96pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         766 CAGAACTGGAGAAGAGTGTG 786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21 CAGAACTTGAGGAAAAGTGAG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAT11440 standard; DNA; 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 81.09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 204
AAT11440
```

Gaps

; 0

. Match 1.7%; Score 14.6; DB 1; Length 21; Local Similarity 81.0%; Pred. No. 3.1e+02; es 17; Conservative 0; Mismatches 4; Indels

Query Match

Best Loc Matches

403 CCCTGCTCCAGCAGGCTCTCC 423

Fr.

schu568-1.rng

```
28-SEP-1999; 99CA-02283458.
19-MAY-2000; 2000CA-02307010.
                                                                                                                         Drouin J, Philips A,
                                                                                                                                                      WPI; 1998-348523/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
nes 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200123604-A2.
                                          12-DEC-1997;
                                                                     12-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAH01968;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAH01968
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                     AAT11420-T11473 are PCR amplification primers used for the amplification of exons 1 to 27 and the promoter of the human retinoblastoma RB1 gene, tased to amplify RB1 exons for use in a method of diagnosing mutations in the RB1 gene. By comparing the lengths of amplification products of RB exons from a suspected RB patient with those of RB wild-type DNA, patients can be diagnosed early which may avoid the need for radiotherapy. Any difference in length of exons between a suspected RB patient and those from wild-type RB1 indicates either a deletion or lineartion mutation. Further sequencing of suspect exons can pinpoint the mutation. The method is directed to the diagnosis of and targeted genetic screening for retinoblastoma in family members of a retinoblastoma
                                                                Retinoblastoma; RB; tumour suppressor gene; cancer; diagnosis; screening; mutation; polymerase chain reaction; PCR; ss.
                                                                                                                                                                                                                                                                                                                                                      Identifying mutation(s) in RB1 exons by quantitative amplification - and by comparing length of amplification products and sequencing, for diagnosis and genetic screening of retinoblastoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Response element, everted repeat; ER; core hexamer motif; nuclear receptor target site; NBRE; nuclear receptor; bind; control; heterologous gene expression; detection; modulator; transcription; Nur.RE; treatment; disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 22 BP; 9 A; 2 C; 4 G; 7 T; 0 U; 0 Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 14.6; DB 1;
Pred. No. 3.3e+02;
0; Mismatches 4;
                                           Retinoblastoma gene, RB1, exon 11 PCR 5' primer.
                                                                                                                                                                                                                                                                                                 Hui M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                936 TITIGITITATGAGTCAACAG 956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Response element of the invention.
                                                                                                                                                                                                                                                                                                 Stevens JK,
                                                                                                                                                                                                                                                                                                                                                                                                                Claim 12; Page 22; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rargarrrrargagacacaca 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAV42245 standard; DNA; 22 BP
                                                                                                                                                                                                                              94US-00271942
                                                                                                                                                                                                                                                       (VISI-) VISIBLE GENETICS INC (HSCR-) HSC RES & DEV LP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.7%;
ilarity 81.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                (first entry)
                                                                                                                                                                                                                                                                                                 Dunn JM,
                                                                                                                                                                                                                                                                                                                              WPI; 1996-097637/10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                           WO9601908-A1
                                                                                                                                                                                                                              08-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9826063-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-SEP-1998
                10-SEP-1996
                                                                                                                                                                      25-JAN-1996
                                                                                                                                                                                                                                                                                                Gallie BL,
                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAV42245;
```

```
Coligonucleotides AAV42230-49 represent response elements of the invention. The specification describes a response element which comprises two half site sequences of 8 bp which are configured as an everted repeat two half site sequences of 8 bp which he last 6 bp of the half site sequences share homology with the core hexamer motif classifying nuclear receptor target sites (NRRS). The response element binds to nuclear receptors. The response elements can be operatively linked to a promoter, and the construct used to transform host cells. The products can be used in a method for the detection of a modulator of transcription at Nur-RE. The multimeric composition can be used in a method for the detection of a modulator of transcription at Nur-RE. The multimeric composition can be used in a method for the involvement of a gene that is transcribed in a Nur-RE-dependent fashion. The composition can be used to inhibit HIV. It can also be used to treat various diseases, including T-cell receptor induced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                o;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Species specific, genus specific, family specific, probe, detection, identification; algal, archaeal; bacterial; fungal; parasitical; microorganism; diagnosis, translation elongation factor Tu; toxin; translation elongation factor G; RecA recombinase; resistance; catalytic subunit of proton-translocating ATPase; antimicrobial; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                       comprising response element - usefu modulators of Nur-response element.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sullI resistance gene detection nucleotide sequence SEQ ID NO:1961.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.7%; Score 14.6; DB 1; Length 22;
81.0%; Pred. No. 3.3e+02;
tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 22 BP; 6 A; 7 C; 3 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                     (RECL-) INST RECH CLINIQUES MONTREAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          517 TGGCATTTGGGAGTCAACGCC 537
                                                                                                                                                                                                                                                                                                                                                                                                                       Double stranded oligo:nucleotide for, e.g detecting transcription
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 6; Page 60; 89pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22 rescarrresaggraarece
                                                                                                                                                                                                                                                      Maira M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP
                                                                                     96CA-02192754.
97WO-CA000962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-SEP-2000; 2000WO-CA001150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAH01968 standard; DNA; 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
```

Zcharia

Vlodavsky I, Michal I,

```
Nucleic acid encoding avian and reptile heparanase polypeptide is to treat various heparin-related disorders and the signal peptide useful in production of membrane-targeted or secreted recombinant
              (INSI-) INSIGHT STRATEGY & MARKETING LTD
                                                                                                                                                                                                         Disclosure; Page 13; 39pp; English
                                                 Soldshmidt O, Pecker I,
                                                                                WPI; 2002-338926/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAK99045;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wilcox S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                      proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAK99045
à
                                                                                                                                                                                                                               The present invention describes a method for generating a repertory of nucleic acids of tuf, fus, atpp and/or recA genes from which probes condor primers are derived. The method comprises amplifying the nucleic acids of determined algal, archaeal, bacterial, fungal and parasitical species with a combination of defined primer pairs. The method can be related microorganisms e.g. algae, archaea, bacteria, fungi and parasites, for universal detection and for specific and ubiquitous detection and identification of an algal, archaeal, bacterial, fungal and parasitical species, genus, family and group, A nucleic acid (I) obtained cusing the method of the invention can be used for the universal detection of any bacterium, fungus or parasite in a sample and for the detection of at least one antimicrobial agent resistance gene or at least one toxin of any bacterium and for identification of Streptococcus pneumoniae. (I) can be used to design a therapeutic agent which is effective against cused to design a therapeutic agent which is effective against corrected include Abiotrophia adiacens, Bordetella sp., which can be detected include Abiotrophia adiacens, Bordetella sp., corynebacteriaceae family, Pseudomonads group, Streptococcus sp., Neisseria gonorrhoeae and Staphylococcus sp. . Using DNA based tests provides faster crealists than substrate specificative tests as results can be determined in an hour and improved accuracy is also achieved. Apploble to the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                    Nucleic acid sequences are used to generate universal probes and primers which can be used to identify and detect the presence of algal, archaeal, bacterial, fungal and parasitical species in a test sample.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chicken heparanase (hpa) cDNA amplifying 3' gene-specific primer ChkL2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Heparanase, catalytic, cytostatic, antiviral, antibacterial, enzyme, anti-protozoan, neuroprotective, heparin, hpa, chicken, PCR primer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                   Ouellette M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Match 1.7%; Score 14.6; DB 1; Length 22; Local Similarity 81.0%; Pred. No. 3.3e+02; es 17; Conservative 0; Mismatches 4; Indels
                                                     Menard C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 22 BP; 5 A; 7 C; 6 G; 4 T; 0 U; 0 Other;
                                                   Boissinot M, Huletsky A,
                  (INFE-) INFECTIO DIAGNOSTIC (IDI) INC.
                                                                                                                                                                                                           Claim 21; Page 1425; 1580pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       467 GCTCCAGGAACTTGGCATTCC 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCAAGGCAGATGGCATTCC 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABL40747 standard; DNA; 22 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-AUG-2001; 2001US-00930218.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-SEP-2000; 2000US-00666390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                      WPI; 2001-245006/25
                                                                       Roy PH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2002034810-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gallus gallus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-JUL-2002
                                                     Bergeron MG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-MAR-2002.
                                                                       Picard FJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABL40747;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loca
Matches
   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
```

```
0
The invention relates to an isolated avian and reptile nucleic acid, encoding a polypeptide with heparanase catalytic activity. The signal peptide of the nucleic acid can be used to express membrane-associated or secreted proteins in heterologous expression systems. The encoded polypeptides can be used to prevent tumour angiogenesis, metastasis and herasion, and to intervene with pathologies associated with impaired heparin-binding growth factors, cellular responses to heparin-binding growth factors, cellular responses to heparin-binding growth factors and cytokines, cell interaction with plasma lipoproteins, cellular tesponses to heparin-binding distintegration of neurodegenerative plaques. The present sequence represents a chicken heparanase (hpa) cDNA amplifying PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Staphylococcus aureus ribosomal polypeptide S20; antibacterial; bacterial ribosomal assembly; food poisoning; multisystem dysfunction; toxic shock syndrome; skin rash; inhibitor; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel isolated Staphylococcus aureus S20 ribosomal polypeptide, useful for identifying inhibitors of bacterial ribosomal assembly.
                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shinabarger
                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                              1.7%; Score 14.6; DB 1; Length 22;
81.0%; Pred. No. 3.3e+02;
iive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mccroskey MC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S. aureus S20 ribosomal DNA PCR forward primer #3.
                                                                                                                                                                                                                                                                      Sequence 22 BP; 2 A; 8 C; 5 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pearson JD, Slightom JL, Chosay JG,
                                                                                                                                                                                                                                                                                                                                                                                                         810 AACCCTGGTACTGTGGTGCT 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; Page 22; 83pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 Agcccrerracicrecerecr 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAK99045 standard; DNA; 22 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (PHAA ) PHARMACIA & UPJOHN CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-JUL-2001; 2001WO-US021103.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-JUL-2000; 2000US-0219361P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                          Local Similarity 81.0
nes 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Staphylococcus aureus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-268962/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200208265-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-JAN-2002.
```

...

The invention relates to an isolated S. aureus ribosomal polypeptide S20, and the isolated polynucleotide molecules that encode them, vectors and thest cells comprising such polynucleotide molecules and also methods for the identification of agents that effect ribosomal assembly. The isolated polypeptide of the invention is useful for identifying inhibitors of bacterial ribosomal assemblies. The inhibitors identified by the method of the invention are useful as antibacterial compounds. The antibacterial compounds can be used against certain strains of S. aureus that can cause skin rashes, food poisoning, or multisystem dysfunction (toxic shock syndrome). Fragments of the polymucleotide of the invention are useful as antibacterial control of the polymucleotide of the invention are useful as a control of the polymucleotide of the invention are useful as probes or primers. This polynucleotide sequence represents a PCR primer of Staphylococcus aureus S20 ribosomal DNA of the invention 8

Sequence 22 BP; 7 A; 2 C; 8 G; 5 T; 0 U; 0 Other;

. 0 Match 1.7%; Score 14.6; DB 1; Length 22; Local Similarity 81.0%; Pred. No. 3.3e+02; les 17; Conservative 0; Mismatches 4; Indels 754 TTAAGGAGATGGCAGAACTGG 774 21 rrraccaccrcacacadarica Query Match 8 d

ö

Gaps

ADC16450 standard; RNA; 22 BP ADC16450; RESULT 209 ADC16450/

18-DEC-2003 (first entry)

Short interfering double-stranded RNA oligonucleotide SEQ ID NO:175.

expression interference; expression inhibition; target gene; short interfering double stranded RNA; cytostatic; gene therapy; proliferative disease; cancer; ds.

Synthetic

WO2003012052-A2

13-FEB-2003

30-JUL-2002; 2002WO-US024226.

30-JUL-2001; 2001US-0308640P. 08-APR-2002; 2002US-0370970P.

USSH) US DEPT HEALTH & HUMAN SERVICES.

CARN-) CARNEGIE INST WASHINGTON. IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD

Morgan RA, Fire A, Parrish S, Mousses S; O, Cornelison JR, Alton EW, Griesenbach U; Kallioniemi O, Caplen NJ,

WPI; 2003-248169/24.

New RNA comprising double stranded RNA and a 3' or 5' overhang having a length of 0-nucleotide to 5-nucleotides on each strand, useful as reverse genetic and/or therapeutic tools for interfering or inhibiting expression of a target gene.

Claim 71; SEQ ID NO 175; 176pp; English.

The present invention describes an RNA (1) used for the interference or inhibition of expression of a target gene, where (1) comprises double stranded RNA of 15-40 nucleotides in length and a 3' or 5' overhang having a length of 0-nucleotide to 5-nucleotides on each strand, where the sequence of the double stranded RNA is substantially identical to a portion of a mRNA or transcript of the target gene. Also described: (1) interfering with or inhibiting the expression of a target gene in a cell by exposing the cell to an amount of (1); (2) a gene silencing array

different double-stranded RNAs; (3) an array-based method of assessing a different double-stranded RNAs; (3) an array-based method of assessing a benerotpic effect of a double-stranded RNA on a target gene; (4) validating a gene as a potential drug target for a disease or condition; (5) selecting an optimised sequence of a double-stranded RNA for and (6) a short double-stranded RNA for and (6) a short double-stranded RNA effective for interfering with or inhibiting expression of a target gene comprising any of 311 20-78 inhibiting expression of a target gene comprising any of 311 20-78 ancientide sequences (see ADC16276 to ADC16586). (1) has cytostatic activity, and can be used in gene therapy. The RNAs are useful as reverse genetic and/or therapeutic tools for interfering or inhibiting expression of a target gene. They are useful for treating proliferative diseases, ö Gaps ö 1.7%; Score 14.6; DB 1; Length 22; 81.0%; Pred. No. 3.3e+02; tive 0; Mismatches 4; Indels Sequence 22 BP; 3 A; 8 C; 3 G; 0 T; 8 U; 0 Other; 672 AAGCTCACAGATGGATCTGCA 692 Query Match
Best Local Similarity 81.09 e.g. cancer. 8 임

22 AAGCTCAAGGATGGAAGTGCA 2

RESULT 210 AAT76486

AAT76486 standard; DNA; 17 BP

AAT76486;

(first entry) 16-SEP-1997 Endothelial nitric oxide antisense oligonucleotide.

Asthma; airway epithelium; adenosine free; cystic fibrosis; chronic obstructive pulmonary disease; bronchitis; ss.

Synthetic.

WO9640162-Al

.9-DEC-1996

96WO-US009306. 06-JUN-1996;

95US-00474497. (UYEC-) UNIV EAST CAROLINA 07-JUN-1995;

Metzger WJ; Nyce JW,

WPI; 1997-051871/05.

Treatment of airway diseases such as asthma - by topically applying adenosine-free antisense oligo:nucleotide to airway epithelium of subject.

Example 5; Page 42; 71pp; English.

which involves the topical administration of an essentially adenosing free antisense oligonucleotide (ON) to the airway epithelium of the subject. The present sequence is an antisense oligonucleotide specific for endothelial nitric oxide. The method can be used to treat airway diseases such as cystic fibrosis, asthma, chronic obstructive pulmonary disease, bronchitis and other airway diseases characterised by an inflammatory response. By eliminating adenosine from the antisense ON, its liberation upon antisense degradation is prevented, thereby preventing adenosine-induced bronchoconstriction in patients with hyperfor treating airway disease in a subject has been produced,

Sequence 17 BP; 0 A; 7 C; 6 G; 4 T; 0 U; 0 Other;

ò

0

1.7%; Score 14.4; DB 1; Length 17; 93.8%; Pred. No. 2.46+02; ive 0; Mismatches 1; Indels

Conservative

15;

Matches

Similarity

Local

Query Match

Seguence 17 BP; 0 A; 7 C; 6 G; 4 T; 0 U; 0 Other;

```
The specification describes antisense oligonucleotides (AAX52869-X55271)

directed against at least 2 mRNAs selected from target genes, coding and
non-coding regions of RNAs corresponding to target genes, coding and
codons, genomic flanking regions, intron-exon borders, the 5'-end, the 3'
end and the juxta-section between coding and non-coding regions and all
segments of RNAs encoding proteins associated with one or more diseases,
conditions or mixtures. The antisense oligonucleotides may be derived
from sequences AAX5572-74. These multiple target oligonucleotides
coditions or mixtures. Thypical diseases and conditions are those
associated with impaired respiration and inflammation, including lung
diseases, pulmonary vasoconstriction, impaded respiration, respiratory
diseases, pulmonary vasoconstriction, emphysema, chronic obstructive pulmonary
disease (COPD), and cancers such as leukemias, lymphomas, carcinomas e.g.
colon cancer, breast cancer, lung cancer, menacatic metastasses, as
well as all types of cancers which may metastasize or have metastasized
to the lungs, including breast and prostate cancer
                                        ..
0
                                                                                                                                                                                                                                                                                                                                                            Antisense oligonucleotide, multiple target; antisense treatment; impaired respiration; inflammation; lung disease; pulmonary vasconstriction; inflammation; allergic rhinitis; acute asthma; allergy; asthma; impeded respiration; respiratory distress syndrome; pain; cystic fibrosis; pulmonary hypertension; pulmonary vasconstriction; emphysema; chronic obstructive pulmonary disease; leukemia; lymphoma; carcinoma; colon cancer; breast cancer; lung cancer; pancreatic cancer; hepatocellular carcinoma; kidney cancer; melanoma; hepatic metastasis;
                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New antisense oligonucleotides used in treatment of, e.g. pulmonary
                                        ;
0
                                                                                                                                                                                                                                                                                                                           Endothelial nitric oxide synthase antisense oligonucleotide.
Query Match 1.7%; Score 14.4; DB 1; Length 17; Best Local Similarity 93.8%; Pred. No. 2.4e+02; Matches 15; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 61; 120pp; English.
                                                                                                                                                                                                              BP.
                                                                          378 GCCGTCCTGCTGGCGG 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97US-0059160P.
98US-00093972.
                                                                                                                 1 secencersersess 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98WO-US019419
                                                                                                                                                                                                            AAX54277 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (UYEC-) UNIV EAST CAROLINA.
                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            prostate cancer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-229400/19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vasoconstriction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9913886-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-SEP-1997;
09-JUN-1998;
                                                                                                                                                                                                                                                                                       05-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                    AAX54277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nyce JW;
                                                                                                                                                                         RESULT 211
```

```
The present invention describes a new composition comprising an antisense oligonuclectide (NON) with low adenosine (up to 15%), which targets nucleic acids involved in bronchoconstriction, allergies, and/or inflammation. The ON can have antiinflammatory, antiallergie, and/or antiaethmatic, cytostatic and analgesic activities. The compositions are useful for the treatment of disease associated with inflammation, impaired airways, including lung disease and diseases whose secondary effects afflict the lungs of a subject. They can be used for treating e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma, impeded respiration, respiratory distress syndrome, pain, cystic fibrosis, pulmonary hypertension, emphysema, chronic obstructive pulmonary hypertension, emphysema, chronic obstructive content of the courcinomas, and cancers which may metastasise to the lungs, including obrasta and prostate cancer. The reduction of the adenosine content of the ONs reduces side effects. The A-containing ONS break down with the release of deoxyadenosine which activates adenosine receptors causing bronched sequences given in the sequence listing from the present invention, which correspond to SEQ ID NO:1 to 2815, and then the last 185
                                                                                                                                                                                                                                                                            antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway; lung disease; ischaemic condition; pulmonary vasoconstriction; asthma; respiratory distress syndrome; pain; cystic fibrosis; emphysema; pulmonary hypertension; chronic obstructive pulmonary disease; COPD; cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
                                                                                                                                                                                                              Human, adenosine receptor, low adenosine antisense oligonucleotide, phosphorothioate; impaired respiration; inflammation; allergy; allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New antisense oligonucleotides useful for treating e.g. pulmonary vasoconstruction, inflammation, allergies, asthma, hypertension, bronchitis, emphysema, respiratory distress syndrome, ischemia or
                                                                                                                                                                       Low adenosine antisense oligonucleotide SEQ ID NO:1410.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 18; Page 441; 1343pp; English.
                                           ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US017712.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0095212P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYEC-) UNIV EAST CAROLINA.
                                           AAA33721 standard; DNA; 17
                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-205971/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200009525-A2
                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-AUG-1998;
                                                                                                                              28-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-FEB-2000.
                                                                                    AAA33721;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nyce JW;
RESULT 212
                         AAA33721
```

```
;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Low adenosine (A) content antisense oligonucleotides which do not trigger adenosine receptors during metabolism, useful e.g. for treating cancers and respiratory obstructions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Low adenosine antisense oligonucleotide; phosphorothioate; allergy; human; airway disorder; bronchoconstriction; lung inflammation; businfactant depletion; respiratory; bronchodilator; antinflammatory; immunosuppressive; antiathmatic; analgesic; hypotensive; cytostatic; respiratory obstruction; pulmonary obstruction; impeded respiration; surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS; respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis; pulmonary hypertension; emphysema; pulmonary transplantation rejection; chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes low adenosine (A) content antisense oligonucleotides and compositions (I) comprising them. In the antisense oligonucleotides the A is replaced by a 'Universal' or alternative base. (I) can have respiratory, bronchodilator, antiinflammatory, analgesic, immunosuppressive, antiasthmatic, hypotensive and cytostatic activities. The antisense oligonucleotides and (I) can be used to down-regulate the expression and or activity of target polypeptides associated with lung/respiratory disorders and malignancies, such as stimulating and activating peptide factors and transmitters, transcription factors, immunoglobulins and antibodies, antibody receptors, cytokines and chemokines, endogenously produced specific and non-specific enzymes,
sequences are also called SEQ ID NO:1 to 185, but the sequences differ from the previously named sequences. SEQ ID NO:11 to 1680 (AAA32323 to AAA33991) are specifically claimed ONS from the present invention. N.B. Sequences given in the disclosure of the present invention do not match up with their corresponding SEQ ID NO: sequences given in the sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human endothelial nitric oxide synthase polynucleotide fragment #1410.
                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                          .
0
                                                                                                                                                                                1.7%; Score 14.4; DB 1; Length 17; 93.8%; Pred. No. 2.4e+02;
                                                                                                                                                                                                                        1; Indels
                                                                                                                                            A; 7 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 14; Page 251; 1592pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                         AAF19843 standard; DNA; 17 BP.
                                                                                                                                                                                                                                                                 378 GCCGTCCTGCTGCCGG 393
                                                                                                                                                                                                                                                                                        1 GCCGTCCTGCTGCCGG 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-MAR-2000; 2000WO-US008020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0127958P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UYEC-) UNIV EAST CAROLINA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-MAR-2001 (first entry)
                                                                                                                                                                                                                          Conservative
                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-679539/66.
                                                                                                                                            Sequence 17 BP; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200062736-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAF19843;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nyce JW;
                                                                                                        listing
                                                                                                                                                                                                                                                                                                                                                                  RESULT 213
    888888888
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                     d
```

```
binding proteins, adhesion molecules and their receptors, cytokine and chemokine receptors, adenosine receptors, bradykinin receptors, central nervous system (CNS) and peripheral nervous and non-nervous system receptors, CNS and peripheral nervous and non-nervous system peripheral nervous and nervous nervous systems or surfactant hypoproduction which are associated with a disease or condition selected from pulmonary vasoconstriction, inflammation, allergies, asthma, impeded respiration, respiration inflammation, hypoproducin perspiration, respiration, inflammation, hypoproducing obstructive pulmonary disease (CDPD), hypoproducing the respiration of pulmonary infections, bronchitis, and/or cancer. April 2 regements and antisense oligonuclectides used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human, gene therapy, adenosine deaminase deficiency; p53; beta-globin, retinoblastoma, BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V; cyclin-dependent kinase inhibitor ZA; CDRVA2, melanoma, APC; HBA1; HBA2; adenomatous polyposis of the colon; Factor VI; Factor IX; thrombosis; haemophilia, alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE; mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LbLR; familial hypercholesterolaemia; VGT1; syndrome, APP; PSEN1; antisense; UDP-glucuronosyltransferase; amyloid precursor protein; presentlin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oligonucleotide for targeted alterations of genetic sequences and for treating cystic fibrosis, comprises at least one mismatch and chemical modification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Adenosine deaminase deficiency correcting oligo SEQ ID NO: 36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.7%; Score 14.4; DB 1; Length 17; 93.8%; Pred. No. 2.4e+02; ative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 17 BP; 0 A; 7 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rice MC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           378 GCCGTCCTGCTGGCGG 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABA77190 standard; DNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-MAR-2001; 2001WO-US009761.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-MAR-2000; 2000US-0192176P.
27-MAR-2000; 2000US-0192179P.
01-JUN-2000; 2000US-02653B2.
30-0CT-2000; 2000US-0244989P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 décércérécrécée 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-JAN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                       the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kmiec EB, Gamper HB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYDE ) UNIV DELAWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-639230/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
nes 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antilipemic; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200173002-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABA77190;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
           \%\%9999999999999999988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

```
The present invention provides single-stranded oligonucleotides which can be used for the targeted alteration of genomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at the following genes: adenosine deaminase, p53, beta-globin, cretinoblastoma, BRCAI, BRCAS, CFTR, cyclin-dependent kinase inhibitor 2A (CDKNAA), APC, Factor V, Factor VIII, Factor IX, heemoglobin alpha locus 1 (HBA1), heemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6, amoliopprotein E (APCS), LD receptor (LDKR), UDP-glucuronosyltransferase (UGTI) amyloid precursor protein (APC), presentlin-1 (PSENI) and presentlin-2 (PSENI). These can be used in the gene therapy of diseases such as cancer, adenosine deaminase deficiency, cystic fibrosis, heemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia, altheimer's disease, melanoma, adenomatous polyposis of the colon and contracting colonial proportion of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human, gene therapy, adenosine deaminase deficiency, p51; beta-globin, retinoblastoma; BRCA1; BRCA2, CFTR, cystic fibrosis; cancer; Factor V, cyclin-dependent kinase inhibitor 2A; CDKN2A, melanoma; ABC, HBA1; HBA2, adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis; haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOB; mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein B; LDLR; familial hypercholesterolaemia; MCT1; syndrome, APP; FSENI; antisense; UDP-glucuronosyltransferase; amyloid precursor protein; presentlin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Adenosine deaminase deficiency correcting oligo SEQ ID NO: 40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oligonucleotide for targeted alterations of genetic sequences treating cystic fibrosis, comprises at least one mismatch and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match 1.7%; Score 14.4; DB 1; Length 17; Best Local Similarity 93.8%; Pred. No. 2.46+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 17 BP; 3 A; 8 C; 3 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oligonuclectides of the invention
                         Claim 7; Page 43; 294pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rice MC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   725 GGAGCTGCGGTACAGT 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABA77194 standard; DNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-MAR-2000; 2000US-0192176P.
27-WAR-2000; 2000US-019219P.
01-UTN-2000; 2000US-028538P.
30-OCT-2000; 2000US-0244989P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-MAR-2001; 2001WO-US009761.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17 GGAGGTGCGGTACAGT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-JAN-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gamper HB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (UYDE ) UNIV DELAWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-639230/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antilipemic; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200173002-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kmiec EB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABA77194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 21194/C
ID XX
ARA77194/C
XX
XX
ABA77194/C
XX
XX
HUMAN
KWW rethin
```

Gaps ..

```
The present invention provides single-stranded oligonucleotides which can be used for the targeted alteration of genomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at the following genes: adenosine deaminase, p53, beta-globin, crimical atoms, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A (CRM2A), APC, Factor V, Factor VIII, Pactor IX, haemoglobin alpha locus 2 (HBA2), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6, apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase (UGTI), anyloid precursor protein (APC), presentilin-1 (PSENI) and course protein (APC), presentilin-2 (PSEN2). These can be used in the gene therapy of diseases such as cancer, adenosine deaminase deficiency, cystic fibrosis, haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia, habeimer's disease, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting cligonucleotides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human, gene therapy, adenosine deaminase deficiency, p53; beta-globin, retinoblastoma, BRCA1, BRCA2, CFTR; cystic fibrosis; cancer; Factor V; cyclin-dependent kinase inhibitor 2A, CDKN2A, melanoma, APC; HBA1, HBA2, adenomatous polyposis of the colon; factor VII; Factor IX, thrombosis; haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1, APOE; mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein B; LDLR; familial hyperchlesterolaemia; UGT1; syndrome; APP; PSEN1; antisense; UDP-glucuronosyltransferase; amyloid precursor protein; presentilin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oligonucleotide for targeted alterations of genetic sequences and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Adenosine deaminase deficiency correcting oligo SEQ ID NO: 43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.7%; Score 14.4; DB 1; Length 17; 93.8%; Pred. No. 2.4e+02; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 17 BP; 3 A; 8 C; 3 G; 3 T; 0 U; 0 Other;
                                     Claim 7; Page 43; 294pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       725 GGAGCTGCGGTACAGT 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABA77197 standard; DNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0192176P.
2000US-0192179P.
2000US-0208538P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-MAR-2001; 2001WO-US009761.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0244989P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17 GGAGGTGCGGTACAGT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 93.8
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (UYDE ) UNIV DELAWARE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gamper HB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-639230/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antilipemic; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200173002-AZ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-MAR-2000;
27-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-OCT-2000;
nodification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kmiec EB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABA77197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 216
  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
```

Oligonucleotide for targeted alterations of genetic sequences and for treating cystic fibrosis, comprises at least one mismatch and chemical modification.

Claim 7; Page 43; 294pp; English.

```
The present invention provides single-stranded oligonucleotides which can be used for the targeted alteration of genomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at the following genes: adenosine deaminase, p53, beta-globin, cretinoblascoma, BRCAI, BRCAI, CPTR, cyclin-dependent kinase inhibitor 2A (CDKNZA), APC, Factor V, Factor VIII, Factor IX, heemoglobin alpha locus (GDKNZA), heemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6, amyloid precursor protein (APC), presentlin-1 (SBSNI) and presentlin-2 (PSENI). These can be used in the gene therapy of diseases (UGTI), amyloid precursor protein (APC), presentlin-1 (PSENI) and chamber's diseases, melanoma, adenomatous polyposis of the colon and Alzhahmer's disease, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin; retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V; cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2; adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis; haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE; mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR; familial hypercholesterolaemia; UGT1; syndrome; APP; FSENI; antisense; UDP-qlucuronosyltransferase; amyloid precursor protein; presentilin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
treating cystic fibrosis, comprises at least one mismatch and chemical modification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Adenosine deaminase deficiency correcting oligo SEQ ID NO: 44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 1.7%; Score 14.4; DB 1; Length 17; Best Local Similarity 93.8%; Pred. No. 2.4e+02; Matches 15; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 17 BP; 3 A; 2 C; 8 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                           oligonucleotides of the invention
                                                                        Claim 7; Page 43; 294pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            725 GGAGCTGCGGTACAGT 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABA77198 standard; DNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 deaderececracier 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 217
             ò
```

The present invention provides single-stranded oligonucleotides which can be used for the targeted alteration of genomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at the following genes: adenosine deaminase, p53, beta-globin, retinoblastoma, BRCA1, BRA2, CFTR, cyclin-dependent kinase inhibitor 2A (CDKN2A), APC, Factor VIII, Factor IX, haemoglobin alpha locus (CDKN2A), haemoglobin alpha locus 2 (HBA2), WiHH, WSH2, MSH6, apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase (UGTI), anyloid precursor protein (APC), presentiln, 1 (PSENI) and presentiln-2 (PSENI). These can be used in the gene therapy of diseases such as cancer, adenosine deaminase deficiency, cystic fibrosis, haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia, habieimer's disease, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting oligonucleotides of the invention

ô

Gaps

·;

Indels

0; Mismatches

725 GGAGCTGCGGTACAGT 740

8

15; Conservative

Matches

ö

GGAGGTGCGGTACAGT

16

원

ABA77193 standard; DNA; 17 BP.

RESULT 218 ABA77193 24-JAN-2002 (first entry)

ABA77193;

Ouery Match 1.7%; Score 14.4; DB 1; Length 17; Best Local Similarity 93.8%; Pred. No. 2.4e+02;

Sequence 17 BP; 4 A; 8 C; 2 G; 3 T; 0 U; 0 Other;

```
Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin; retinoblastoma; BRCA1; BRCA2; CTRR; cystic fibrosis; cancer; Factor V; cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2; adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis; haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE; mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein B; LDLR; familial hyperchlesterolaemia; UGT1; syndrome; APP; PSEM1; antisense; UDP-glucuronosyltransferase; amyloid precursor protein; presentilin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
                                                                 Adenosine deaminase deficiency correcting oligo SEQ ID NO: 39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rice MC;
                                                                                                                                                                                                                                                                                                                                                                                                                     27-MAR-2000; 2000US-0192176P.
27-MAR-2000; 2000US-019219P.
01-UUN-2000; 2000US-0208538P.
30-OCT-2000; 2000US-024989P.
                                                                                                                                                                                                                                                                                                                                                                                      27-MAR-2001; 2001WO-US009761.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (UYDE ) UNIV DELAWARE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gamper HB,
                                                                                                                                                                                                                                                      antilipemic; ss
                                                                                                                                                                                                                                                                                                                     WO200173002-A2.
                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                     04-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kmiec EB,
```

WPI; 2001-639230/73.

Rice MC;

Gamper HB,

Kmiec EB,

WPI; 2001-639230/73

(UYDE) UNIV DELAWARE

27-MAR-2000; 2000US-0192176P. 27-MAR-2000; 2000US-0192179P. 01-UJN-2000; 2000US-0208138P. 30-OCT-2000; 2000US-0244989P.

27-MAR-2001; 2001WO-US009761.

antilipemic; ss

WO200173002-A2. Homo sapiens.

04-OCT-2001

```
The present invention provides single-stranded oligonucleotides which can be used for the targeted alteration of genomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at the following genes: adenosine deaminase, p53, beta-globin, cretinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A (CDKN2A), APC, Factor VII, Factor IX, haemoglobin alpha locus (CDKN2A), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6, apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase (UGTI), amyloid precursor protein (APOE), presentilin-1 (PSENI) and presentilin-2 (PSENI2). These can be used in the gene therapy of diseases such as cancer, adenosine deaminase deficiency, cystic fibrosis, haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia, altahemer's disease, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting oligonucleotides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin; retinoblastoma; BRCA1; BRCA2; CFTB, cystic fibrosis; cancer; Factor V; cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2; adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis; haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE; mismatch repair; MSH6; hyperlipidaemia; apolipoprotein B; LDLB; familial hypercholesterologia; UCT1; syndrome; APP; PSEN1; antisense; UDP-glucuronosyltransferase; amyloid precursor protein; presentin-1; Albehame; disease; cytostatic; antisickling; antianaemic; haemostatic;
   Oligonucleotide for targeted alterations of genetic sequences and for treating cystic fibrosis, comprises at least one mismatch and chemical modification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Adenosine deaminase deficiency correcting oligo SEQ ID NO: 35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.7%; Score 14.4; DB 1; Length 17;
33.8%; Pred. No. 2.4e+02;
ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 17 BP; 3 A; 3 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                         Claim 7; Page 43; 294pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rice MC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         725 GGAGCTGCGGTACAGT 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABA77189 standard; DNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-MAR-2000; 2000US-0192176P.
27-MAR-2000; 2000US-0192179P.
01-UUX-2000; 2000US-0208538P.
30-OCT-2000; 2000US-0244989P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-MAR-2001; 2001WO-US009761.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 GGAGGTGCGGTACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gamper HB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (UYDE ) UNIV DELAWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          antilipemic; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200173002-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kmiec EB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABA77189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABA77189

ID ABA77189

ID ABA77189

XXX ABA7

XXX ABA7

XXX Aden

XXX Huma

XXW Huma

XXW Home

XXW Home

XXW Home

XXW Home

XXX Home

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
à
```

ö

```
The present invention provides single-stranded oligomucleotides which can be used for the targeted alteration of genomic sequences, where the oligomucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at the following genes: adenosine deaminase, p53, beta-globin, cetinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A (CDKN2A), APC, Factor VIII, Factor IX, haemoglobin alpha locus (CHBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6, apolipoprotein B (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase (UGT1), anyloid precursor protein (APOE), presentilin-2 (PSEN2). These can be used in the gene therapy of diseases such as cancer, adenosine deaminase deficiency, cystic fibrosis, haemophilia, hypercholesteroleamia, thalassemia, sickle cell anaemia, hallelmer's disease, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting oligonucleotides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Domain
                              Oligonucleotide for targeted alterations of genetic sequences and for treating cystic fibrosis, comprises at least one mismatch and chemical modification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human, Grb2-related with Insert Domain; GRID; T-cell; co-stimulatory adaptor protein; tissue rejection; graft rejection; leukaemia; cytostatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New nucleic acid(s) for regulating the Grb2-related with Insert I (GRID) gene comprises using antisense and enzymatic nucleic acid molecules such as hammerhead ribozymes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.7%; Score 14.4; DB 1; Length 17; 93.8%; Pred. No. 2.4e+02; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hamblin PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human GRID NCH ribozyme substrate oligonucleotide #210.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 17 BP; 3 A; 3 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jarvis T, Von Carlowitz I, Mcswiggen JA,
                                                                                                         Claim 7; Page 43; 294pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 4; Page 66; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABL46756 standard; RNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            725 GGAGCTGCGGTACAGT 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-FEB-2001; 2001WO-US005957.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 gaaggracegracagr 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-FEB-2000; 2000US-0184594P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (RIBO-) RIBOZYME PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 93.89
The Similarity 93.89
The Similarity 93.89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLAX ) GLAXO GROUP LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-550088/61.
WPI; 2001-639230/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200162911-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABL46756;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 220
ABL46756/c
 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

ô

Gaps

. 0

```
The present invention relates to oligonucleotides that downregulate the expression of human GPL2-related with Insert Domain (GRID) gene. GRID is a T-cell co-stimulatory adaptor protein. The oligonucleotides are useful for modulating the expression of GRID, to treat conditions such as tissue/graft rejection and leuksemia. The oligonucleotides can also be administered in conjunction with other therapies such as radiation, chemotherapy and cyclosporin treatment. The present oligonucleotide was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to oligonucleotides that downregulate the expression of human Grb2-related with Insert Domain (GRID) gene. GRID is a T-cell co-stimulatory adaptor protein. The oligonucleotides are useful for modulating the expression of GRID, to treat conditions such as tissue/graft rejection and leukaemia. The oligonucleotides can also be administered in conjunction with other therapies such as radiation, chemotherapy and cyclosporin treatment. The present oligonucleotide was used to illustrate the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Grb2-related with Insert Domain; GRID; T-cell;
mulatory adaptor protein; tissue rejection; graft rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New nucleic acid(s) for regulating the Grb2-related with Insert E (GRID) gene comprises using antisense and enzymatic nucleic acid molecules such as hammerhead ribozymes.
                                                                                                                                                                                                                 Query Match
1.7%; Score 14.4; DB 1; Length 17;
Best Local Similarity 93.8%; Pred. No. 2.4e+02;
Matches 15; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hamblin PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human GRID NCH ribozyme substrate oligonucleotide #209
                                                                                                                                                                             Sequence 17 BP; 4 A; 9 C; 4 G; 0 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Seguence 17 BP; 5 A; 8 C; 4 G; 0 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jarvis T, Von Carlowitz I, Mcswiggen JA,
                                                                                                                                          used to illustrate the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 4; Page 66; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    co-stimulatory adaptor protein;
leukaemia; cytostatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                        ABL46755 standard; RNA; 17 BP.
                                                                                                                                                                                                                                                                                                  136 CTGCTTTGGGGGCTGC 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-FEB-2001; 2001WO-US005957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-FEB-2000; 2000US-0184594P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIBO-) RIBOZYME PHARM INC.
                                                                                                                                                                                                                                                                                                                                      crecreresesscrec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GLAX ) GLAXO GROUP LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-550088/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200162911-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-AUG-2001
                                                                                                                                                                                                                                                                                                                                        91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABL46755;
                                                                                                                                                                                                                                                                                                                                                                                              RESULT 221
ABL46755/c
à
```

```
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonuclectide antisense to the initiation codon, coding region, 5' or 3' or 3' and 3' intron-exon junctions, 5' or 3' or regions within 2-10 nuclectides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an artiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antiallergic, antialergic, antialergic, antialergic, antialergic, antialergic, antialergic, antialergic, antialergic, antialergic, composition may have a use in antisense gene therapy. The composition may have a use in antisers gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also composition a subject, for reducing or depleting levels of an antiinflammatory steroid in a subject, for reducing or depleting levels of adenosine receptor, producing bronchodilation, increasing levels of adenosine cronding inflammation, lung altergies, or respiratory disease or condition.

Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
                                                                                                                                                                                                                                                                                                                               Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone, antiinflammatory; antiallergic; antianflammatory, importantive, immunosuppressive, cytostatic; gene therapy, antisense gene therapy; regizatory, lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
                                                                                                                                                                                                                                                                                     Human endothelial nitric oxide synthase antisense fragment no.1401.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aguilar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pabalan J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; SEQ ID NO 10779; 872pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                           inflammation; respiratory disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             м,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sandrasagra A, Katz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-APR-2002; 2002WO-US013135.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-APR-2001; 2001US-0286137P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (EPIG-) EPIGENESIS PHARM INC
                                                                                                                                             ABZ95537 standard; DNA; 17
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-229219/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Li Y, Sa
Tang L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200285308-A2
                                                                                                                                                                                                                                       17-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ubiquinone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Miller S,
                                                                                                                                                                                            ABZ95537;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nyce JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                             lung
```

Conservative

Query Match Best Local Similarity Matches 15; Conserv

ô

Gaps

. 0

1.7%; Score 14.4; DB 1; Length 17; 93.8%; Pred. No. 2.4e+02; tive 0; Mismatches 1; Indels

Seguence 17 BP; 0 A; 7 C; 6 G; 4 T; 0 U; 0 Other;

ö

Gaps

; 0

1.7%; Score 14.4; DB 1; Length 17; 93.8%; Pred. No. 2.4e+02; Live 0; Mismatches 1; Indels

Domain

Ellis JH

136 CTGCTTTGGGGGCTGC 151

Conservative

Local Similarity es 15; Conserv

Best Loca Matches

Query Match

```
The present sequence represents an antisense oligonucleotide directed against the human protein kinase A-RI-alpha gene. The antisense oligonucleotides is useful as a carcinostatic agent, e.g. for treating leukaemia, large intestinal cancer. Tectal cancer, colon cancer, cancer of the lung or stomach, hepatic cancer, malignant lymphoma, cancer of the tongue, oesophagus, breast, uterus or pharynx, brain tumour, melanoma, or
                                                                                                                                                                                                                                                                                                                                                                               Oligo:nucleotide contg. human protein kinase A gene sequence - useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
colon cancer; lung cancer; stomach cancer; hepatic cancer; melanoma; malignant lymphoma; tongue cancer; oesophagus cancer; breast cancer; uterus cancer; pharynx cancer; brain tumour; malignant myoma; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antiinflammatory; gastrointestinal; gene therapy; vaccine; asthma; obesity; inflammatory bowel disease; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; Gene 216; chromosome 20p13-p12; antiasthmatic; anorectic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.7%; Score 14.4; DB 1; Length 18; 93.8%; Pred. No. 2.7e+02; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 18 BP; 4 A; 4 C; 7 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gene 216 SSCP sequencing primer SEQ ID NO 181.
                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 7; Page 16; 24pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GENO-) GENOME THERAPEUTICS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                477 CTTGGCATTCCTCAGG 492
                                                                                                                                                                                                   95WO-JP002452.
                                                                                                                                                                                                                                     94JP-00324006.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-APR-2000; 2000US-00548797.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-APR-2001; 2001WO-US012245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16 CATGGCATTCCTCAGG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABZ72209 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                          (POKK ) POLA CHEM IND INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                            Geiser TG;
                                                                                                                                                                                                                                                                                                                                             WPI; 1996-277711/28.
                                                                                                                                                                                                                                                                                                                                                                                                      carcinostatic agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
Les 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200178894-A2
                                                                                      Homo sapiens
                                                                                                                                                                                                   01-DEC-1995;
                                                                                                                                                                                                                                     02-DEC-1994;
                                                                                                                              WO9616976-A1
                                                                                                                                                                                                                                                                                                            Tsuchiya M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-OCT-2001.
                                                                                                                                                                06-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABZ72209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Keith T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 225
     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents an antisense oligonucleotide directed against the human protein kinase A-RI-alpha gene. The antisense oligonucleotides is useful as a carcinostatic agent, e.g. for treating leukaemia, large intestinal cancer, calcan cancer, colon cancer, cancer of the lung or stomach, hepatic cancer, malignant lymphoma, cancer of the tongue, oesophagus, breast, uterus or pharynx, brain tumour, melanoma, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oligo:nucleotide contg. human protein kinase A gene sequence - useful as
                                                                                                                                                                                                                                                     Human protein kinase A-RI-alpha gene; antisense oligonucleotide; carcinostatic; leukemia; large intestinal cancer; rectal cancer; colon cancer; tung cancer; tomach cancer; hepatic cancer; melanoma; malignant lymphoma; tongue cancer; oesophagus cancer; breast cancer; uterus cancer; pharynx cancer; brain tumour; malignant myoma; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antisense oligonucleotide targeted to protein kinase A-RI-alpha gene.
                                                                                                                                                                                                                    Antisense oligonucleotide targeted to protein kinase A-RI-alpha gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human protein kinase A-RI-alpha gene; antisense oligonucleotide;
carcinostatic; leukemia; large intestinal cancer; rectal cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7%; Score 14.4; DB 1; Length 18; 93.8%; Pred. No. 2.7e+02; Aative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 18 BP; 3 A; 7 C; 4 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 9; Page 18; 24pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            477 CTTGGCATTCCTCAGG 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAX34987 standard; DNA; 18 BP
                                                                                                               ВР
 95WO-JP002452.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94JP-00324006
                                                                                                               AAX34992 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-JUN-1999 (first entry)
                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATGGCATTCCTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POKK ) POLA CHEM IND INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Geiser TG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                carcinostatic agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1996-277711/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              malignant myoma
                                                                                                                                                                                    30-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                       WO9616976-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isuchiya M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            96-TUN-1996
                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAX34987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            m
                                                                                                                                                 AAX34992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 224
AAX34987/C
TD AAX349
XX
AC AAX349
XX
XX
DT 30-JUN
XX
XX
DE Antise
XX
KW Human
KW Human
                                                                            RESULT 223
                                                                                           AAX34993
ID AA
```

g

ð

ö

```
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                         The invention relates to isolated genes (Gene 216) from human chromosome 20p13-p12 and the proteins they encode. The nucleic acids and proteins as associated with inappropriate Gene 216 expression. For example, the nucleic acids (or vectors) and proteins may be used to treat disorders associated with inappropriate Gene 216 expression. For example, the nucleic acids (or vectors) and proteins may be used to treat disorders is a patient's genome that affect the activity of gene 216 by expressing in a patient's genome that affect the activity of gene 216 protein, by inserting the nucleic acids into a host secreted Gene 216 protein, by inserting the nucleic acids into a host complementary sequences may also be used as DNA probes in diagnostic complementary sequences may also be used as DNA probes in diagnostic sassays to detect and quantitate the presence of similar nucleic acids and complementary sequences may also be used as antigens in sequences in samples and therefore which patients may be in need of restorative therapy. The Gene 216 protein may also be used as antigens in the production of antibodies against Gene 216 and in assays to identify and antagonists may also be used to down regulate expression and activity. The anti-Gene 216 antibodies and antagonists may also be used as diagnostic general civity. The anti-Gene 216 antibodies and antagonists may also be used as diagnostic cagnits for detecting the presence of Gene 216 proteins in samples of the prevented, diagnosed and/or treated by the above methods include, for example asthma, obesity and inflammatory bowel disease. The present cagnumented, diagnosed and difficultion using single strand conformation. The primers are used in the physical mapping of the gene (ABZ72067-ABZ72089), polymorphism identification using single strand conformational polymorphism (Second and genetyping (ABZ72184),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                    Isolated genes (Gene 216) from human chromosome 20p13-p12 and the proteins they encode, useful for the prevention, diagnosis and treatment of asthma, obesity and inflammatory bowel disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; calreticulin; antisense compound; hyperproliferative disorder; cancer; autoimmune disease; viral infection; cardiovascular disease; antisense therapy; cytostatic; immunosuppressive; virucide; antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.7%; Score 14.4; DB 1; Length 20;
ilarity 93.8%; Pred. No. 3.1e+02;
Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human calreticulin antisense oligonucleotide, ISIS 109289.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .20

/*tag= a

/mod base= OTHER

/note= "Phosphorothicate backbone"

1. .5

/*tag= b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 9 A; 6 C; 3 G; 2 T; 0 U; 0 Other;
                                                                                                                              Example 10; Page 150; 520pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAD39496 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        821 TGTGGGTGCTGAAGCT 836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              phosphorothicate backbone; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rgrgggrccrgaagcr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-OCT-2002 (first entry)
WPI; 2001-639428/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAD39496;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAD39496
```

δ g

```
The invention relates to antisense compounds, compositions and methods for modulating the expression of carreticulin. The compositions comprise antisense compounds, particularly antisense oligonucleotides, targetted to nucleic acids encoding calreticulin. The antisense compound is useful for inhibiting the expression of calreticulin in human cells or tissues. It is also useful for treating a human having a disease or condition associated with calreticulin, e.g., hyperproliferative disorder e.g. cancer, autoimmune disease, viral infection or cardiovascular disease, by inhibiting expression of calreticulin. It is useful for diagnostics, therapeutics, prophylaxis and as research reagents and kits. It is also targetted to human calreticulin. This sequence is an antisense compound antisense that the configuration of calreticulin expression-phosphorothioate 2'-MOE gapmer oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel antisense compound targeted to nucleic acid encoding calreticulin, useful for treating a human having disease or condition associated with calreticulin e.g. cancer, viral infection, autoimmune disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7%; Score 14.4; DB 1; Length 20;
33.8%; Pred. No. 3.1e+02;
ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                            note = "2'methoxyethyl nucleotides"
                      note= "2'methoxyethyl nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20 BP; 2 A; 7 C; 6 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 3; Page 82; 109pp; English.
                                                                                                                                                                                                                                     *tag= c
/mod_base= OTHER
"^, mathox
'mod base= OTHER
                                                                                                                                                                                    mod_base= m5c
..20
                                                                                                                                                                                                                                                                                                                                                                                                                                   *tag= g
mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   *tag= h
mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag= i
/mod_base= m5c
                                                                                                       mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                  *tag= f
mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              342 CTTGGTGCCAGCGCCA 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-OCT-2001; 2001WO-US049045.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-OCT-2000; 2000US-00702327.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTGGTGCCAGGGCCA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 93.8%;
Matches 15; Conservative
                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cowsert LM;
                                                                                *tag=
                                                                                                                                                             *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-479759/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200236743-A2
                                                modified_base
                                                                                                                                                                                                                 modified base
                                                                                                                                                                                                                                                                                                                           nodified base
                                                                                                                                                                                                                                                                                                                                                                                                         modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified base
                                                                                                                                 modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bennett CF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LO-MAY-2002
```

ò

Favis R,

Gerry NP,

```
oncogene; tumour suppressor; human papillomavirus; forensic; environmental monitoring; food industry; feed industry; ss.
                                                                                                                                                       (CORR ) CORNELL RES FOUND INC
                                                                                                         04-APR-2001; 2001WO-US010958.
                                                                                                                                 14-APR-2000; 2000US-0197271P.
                                                                                                                                                                                                       WPI; 2002-034366/04.
                                                                                                                                                                                Barany F, Zirvi M,
                                                           WO200179548-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-MAR-2003
                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABX75062;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABX75062/
 XXXXXXXXXXXXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention comprises antisense oligonucleotides which are targeted to the coding region of the human helicase-moi gene. The antisense oligonucleotides of the invention are useful for inhibiting the expression of human helicase-moi in cells or tissues, and for treating a helicase-moi-associated condition. The antisense oligonucleotides of the invention may also be used to delay infection, inflammation and tumour formation. The present DNA sequence represents a human helicase-moi gene antisense oligonucleotide of the invention, NOTE: The present DNA sequence has a phosphorothioate bases 1-5 and 16-20 are 2'-
                                                                                                                                                                                                                                                                                                                                                                                      Novel antisense compound for modulating expression of human helicase-moi and for treating inflammation, specifically hybridizes to a specific region in nucleic acid molecule encoding the human helicase-moi.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; K-ras; PCR primer; probe; capture probe; mutation detection; ligase detection reaction; LDR; p53; BRCAl; BRCA2; infectious disease; infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                               Human; antisense gene therapy; phosphorothioate backbone; antisense oligonucleotide; helicase-moi gene; inflammation; ss; helicase-moi-associated condition; infection; tumour formation; 2-MOE nucleotide; 2'-methoxyethyl nucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.7%; Score 14.4; DB 1; Length 20; 3.8%; Pred. No. 3.1e+02; ve 0; Mismatches 1; Indels
                                                                                                         Human helicase-moi inhibiting oligonucleotide #32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 3 A; 6 C; 4 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Capture oligonucleptide Zip ID#2044 oligo #9.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 3; Col 45-46; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        methoxyethyl (2'-MOE) nucleotides
                                 ABT13907 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      310 ATGGGAAAGACTGCAG 325
                                                                                                                                                                                                                                                                  10-MAY-2001; 2001US-00853768
                                                                                                                                                                                                                                                                                        10-MAY-2001; 2001US-00853768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABI94957 standard; DNA; 20
                                                                                13-FEB-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15; Conservative
                                                                                                                                                                                                                                                                                                                (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-749291/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                       Ward DT, Watt AT;
                                                                                                                                                                                                                 US6444466-B1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-FEB-2002
                                                                                                                                                                                                                                         03-SEP-2002.
                                                           ABT13907;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABI94957;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                        ABT13907
```

```
The present invention describes a method (M1) for designing capture oligomucleotide probes (I) for use on a support to which complementary coligomucleotide probes (II) will hybridise with little mismatch, where coligomucleotide probes (II) will hybridise with little mismatch, where coligomucleotide probes (II) will hybridise with little mismatch, where coligomucleotide probes (II) will hybridise with little mismatch, where coligomucleotide diseases (II) will hybridise with little inflectious agents coliforations agents e.g. Gryptococcus neoformans, Candida albicans and infectious agents of Aspergillus fundgatus, viruses e.g. T-cell lymphocytotrophis cirus, Epstein-Bar virus and pollo virus, and parasitic infectious agents calcusts. The method is also useful for detecting genetic diseases such as 21 hydroxylase deficiency, Turner Syndrome and obesity defects.

Concer is specifically associated with a gene selected from Bachl gene, cancer is specifically associated with a gene selected from Bachl gene, pasticular sites and identifying if ligation of the oligomucleotide probe sets occurred and correlating (using e.g. a scanning catetor microscope and infrared microscope) the support at the presence or absence of the target mucleotide sequences. All gation to a presence or absence of the target mucleotide sequences. Ball gation to a feature it was a sequences used in the exemplification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; mouse; ss; primer; gene 216; antiasthmatic; antiinflammatory; anorectic; chromosome 20p13-p12; single nucleotide polymorphism; SNP; gene therapy; respiratory disease; asthma; obesity; PCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
Designing capture oligonuclectide probes for use on a support complementary oligonuclectides hybridize with little mismatch.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.7%; Score 14.4; DB 1; Length 20; 33.8%; Pred. No. 3.1e+02; ve 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human gene 216 polymorphism detection PCR primer #119.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 3 A; 7 C; 5 G; 5 T; 0 U; 0 Other;
                                                                                                                                   Example 5; Fig 29; 300pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     230 GACGGCCGTGGCTCAG 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           :062/c
ABX75062 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 93.8 Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of the present invention
```

; 0

```
Homo sapiens.
            Homo sapiens
                                                             28-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAL62456;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAL62456
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This invention relates to a novel isolated mucleic acid, gene 216, identified from human chromosome 20p13-p12. The invention also discloses regions of the 216 gene that contain single mucleotide polymorphisms (SNP's) which may be used as markers for disease usceptibility or severity. The nucleotides of the invention may have antiasthmatic, antinflammatory or anorectic activities and may be used in gene therapy. The nucleotides or its fragments are useful for diagnosing, preventing or treating a disorder, such as respiratory diseases (e.g. asthma, bronchial hyper-responsiveness, chronic obstructive pulmonary disease or adult respiratory distress syndrome), observed; or inflammatory bowel syndrome. The nucleic acids are also useful for identifying increased susceptibility of a subject to the disorders mentioned. The nucleic acids can also be used as primers and templates for the combinant production of disorder-associated peptides or polypeptides, for chromosome and gene mapping, or for tissue distribution studies. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                    New isolated gene 216 nucleic acids, useful for diagnosing, preventing or treating a disorder, such as asthma, bronchial hyper-responsiveness, chronic obstructive pulmonary disease, obesity or inflammatory bowel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polo-like kinase 1; PLKI; proliferative disease; cancer; mitotic progression; centrosome maturation; bipolar spindle formation; cartokinesis; short interfering RNA; siRNA; shRNA; muclease inhibitor; aurin tricarboxylic acid; ATA; U6; H1 promoter; antiproliferative; cytostatic; ss; antisense oligonucleotide; P7; human.
bronchial hyper-responsiveness; chronic obstructive pulmonary disease; adult respiratory distress syndrome; inflammatory bowel syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                      Del Mastro RG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.7%; Score 14.4; DB 1; Length 20; 93.8%; Pred. No. 3.1e+02; rative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antisense oligonucleotide P7 to inhibit PLK1 expression.
                                                                                                                                                                                                                      Dupuis J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20 BP; 9 A; 6 C; 3 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                      Little RD, Van Berdewegh P,
Allen K, Pandit S;
                                                                                                                                                                                                                                                                                                                                                      Example 10; Page 156; 650pp; English
                                                                                                                                                                                (SCHE ) SCHERING CORP. (GENO-) GENOME THERAPEUTICS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADA38267 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            821 TGTGGGTGCTGAAGCT 836
                                                                                                                   .5-APR-2002; 2002WO-US012063.
                                                                                                                                          13-APR-2001; 2001US-00834597, 13-APR-2001; 2001WO-US012245.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTGGGTCCTGAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 93.8
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          scope of the invention
                                                                                                                                                                                                                                                             WPI; 2003-092960/08.
                                                                  WO200283077-A2
                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-NOV-2003
                                                                                            24-OCT-2002.
                                                                                                                                                                                                                      Keith T,
Simon J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18
                                                                                                                                                                                                                                                                                                                             syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 230
ADA38267/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

```
This invention relates to a novel agent for inhibiting or reducing the elevated expression levels of polo-like kinase I (PLKI), which are associated with the development and progress of proliferative diseases, such as cancer. Specifically, PLKS are serine, threonine kinases that play key roles in mitotic progression, contribute to centrosome maturation, bipolar spindle formation and are key regulators of cytokinesis. The present invention describes agents where at least one short interfering RNA (siRNA), preferably an shRNA (hairpin), or antisease RNA is directed against the PLKI agene as active agent. Additionally, the agent comprise a nuclease inhibitor, for example, aurin tricarboxylic acid (ATA) and an RNA specific promoter such as the US of H promoters. Accordingly, the siRNAs targeted against human PLKI are valuable antiproliferative agents and likewise the phosphorothioate antisease specific oligonucleotides (ASOS) which hybridise with human PLKI mRNA, inhibit PLKI expression in tumour cells, such that they can be described as having cytostatic activity. This oligonucleotide sequence is the antisense oligo P7 located in the open reading frame that inhibits
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABC transporter; ABCT; major histocompatibility complex; MHC; cytostatic; hyperproliferative; autoimmune disorder; antisense gene therapy; inflammation; tumour formation; immunosuppressive; antimicrobial; human; phosphorothioate backbone; antisense; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New polo-like kinase I agent containing duplex RNAs antisense oligonuclectides and inhibitory peptides, useful for treating disorders with elevated PLK1 expression levels, such as proliferative diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human ABC transporter MHC I antisense oligonucleotide, ISIS 206637.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.7%; Score 14.4; DB 1; Length 20; 93.8%; Pred. No. 3.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seguence 20 BP; 2 A; 8 C; 5 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 123; 123pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Strebhardt K, Spaenkuch-Schmitt B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          318 GACTGCAGAGAAGCTG 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAL62456 standard; DNA; 20 BP
                                                                                                                                                        21-FEB-2003; 2003WO-EP001809.
                                                                                                                                                                                                                                                                              17-MAY-2002; 2002EP-00011074
08-NOV-2002; 2002EP-00025103
                                                                                                                                                                                                                                           22-FEB-2002; 2002EP-00003982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-OCT-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTGCAGGGAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                         (STRE/) STREBHARDT K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    particularly cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-697573/66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
ses 15; Conserv
WO2003070283-A2
```

ö

```
111 011 00 TO:25:03 7004
```

Scinces-reig

```
The invention relates to a compound targetted to a nucleic acid molecule where the compound specifically hybridises with the nucleic acid molecule and inhibits expression of AFM or specifically hybridises with the nucleic acid molecule portion of an active site on the nucleic acid molecule. The inhibiting the expression of AFM in cells or thissues. The invention is useful for inhibiting the expression of AFM in cells or tissues. The invention is useful for treating an animal with hyperproliferative or therapeutics, prophylaxis, as research reagents and kits, for therapeutics, prophylaxis, as research reagents and kits, for discinguishing functions of various members of a biological pathway and in antisense gene therapy. The invention is also useful prophylactically e.g., to prevent or delay infection, inflammation or tumour formation. The present sequence is an antisense oligo targetted to human ABC transporter MHC I DNA. This sequence is used to illustrate the method of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New antisense compound that hybridizes and inhibits the nucleic acid encoding ABC transporter major histocompatibility complex 1, for treating diseases or conditions such as a hyperproliferative or autoimmune disorder.
                                                             /mod_base= OTHER
/note= "Phosphorothicate backbone; All cytidines are 5-
                                                                                                                                                                 "2'methoxyethyl nucleotides"
                                                                                                                                                                                                                    /mod_base= OTHER
/note= "2'methoxyethyl nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 3 A; 8 C; 6 G; 3 T; 0 U; 0 Other;
              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3; Page 81; 112pp; English.
                                                                                                                                                 base= OTHER
                                                                                                 methylcytidines"
                                                                                                                                                                                                                                                                                                                                         12-DEC-2002; 2002WO-US040101
                                                                                                                                                                                                                                                                                                                                                                         17-DEC-2001; 2001US-00024369
                                                                                                                               /*tag= b
/mod_base=
/note= "2'm
                                                  ď
                                                                                                                                                                                                       U
                                                                                                                                                                                   16. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                          Ward DT,
                                .20
                                                                                                                                                                                                                                                                                                                                                                                                           (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-577305/54.
                                                                                                                                                                                                                                                                      WO2003051309-A2
                 Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the invention
                                                                                                                                                                                   modified_base
                                                                                                                 modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                           Borchers AH,
                                                                                                                                                                                                                                                                                                      26-JUN-2003
```

ö Gaps ; 0 Match 1.7%; Score 14.4; DB 1; Length 20; Local Similarity 93.8%; Pred. No. 3.1e+02; les 15; Conservative 0; Mismatches 1; Indels Query Match Matches ð

404 CCTGCTCCAGCAGGCT 419 CCTGCTCCACCAGGCT

g

AAD62184 standard; DNA; 20 AAD62184 RESULT 232
AAD62184/c
ID AAD621
XX
AC AAD621
XX
XX
DT 15-JAN
DE Human

BP.

15-JAN-2004

Human haematopoietic cell tyrosine kinase antisense oligo ISIS #150739.

Haematopoietic cell; tyrosine kinase; hyperproliferative disorder; cancer; therapy; inflammation; diabetes; viral infection; inflammation; tumour; cytostatic; virucide; antisense therapy; antisense; human; phosphorothioate backbone; sa 1. .20 /*tag= a /mod_base= OTHER /note= "Phosphorcthioate backbone; All cytidines are 5-methyl cytidines" /mod_base= OTHER /note= "2'-O-methoxyethyl (2'-MOE) nucleotides" 16. 20 /*tag= c /mod_base= OTHER /note= "2'-0-methoxyethyl (2'-MOE) nucleotides" Location/Qualifiers *tag= b Key modified_base modified base modified base Homo sapiens Synthetic. SXCCCCCCCCCCCCCXSXLPTPXBXPXPXPXPXPXPXPXPTPTFTFTFTFTXSSXXWWWXX

US2003125275-A1

03-JUL-2003

04-DEC-2001; 2001US-00007010.

04-DEC-2001; 2001US-00007010.

(ISIS-) ISIS PHARM INC

Borchers AH, Dobie KW;

WPI; 2003-811000/76.

or New antisense oligonucleotides targeted to nucleic acids encoding hematopoietic cell protein tyrosine kinase, useful for diagnosing treating cancer (e.g. leukemia), inflammation, diabetes or viral infections.

Claim 3; Page 25; 59pp; English.

The invention relates to a compound targetted to a nucleic acid molecule encoding haematopoietic cell protein tyrosine kinase. The compound inhibits the expression of haematopoietic cell protein tyrosine kinase and it specifically hybridises with the nucleic acid molecule encoding the tyrosine kinase or with at least an 8-nucleobase portion of an active site on the nucleic acid molecule encoding the tyrosine kinase. The antisense compounds are useful for modulating the expression of haematopoietic cell protein tyrosine kinase and treating diseases or conditions associated with the expression of the tyrosine kinase, such as hyperoliferative disorders (e.g. cancer), inflammation, diabetes or a viral infection. The antisense compounds are also useful for diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay infection, inflammation or tumour formation, as research reagents and kits and in the present functions of various members of a biological pathway. The present sequence is human haematopoietic cell tyrosine kinase antisense oligonucleotide

Seguence 20 BP; 6 A; 6 C; 7 G; 1 T; 0 U; 0 Other;

. 0 1.7%; Score 14.4; DB 1; Length 20; 93.8%; Pred. No. 3.1e+02; ive 0; Mismatches 1; Indels 0 93.8%; Conservative Local Similarity les 15; Conserv Best Loca Matches

ö

297 GTCGGGGCCCTGCATG 312 Greegreecergearg 3

à

Shlomit G;

10-SEP-2001

AAZ71285;

RESULT 233

28-OCT-1999

Cohen D,

```
The present invention relates to a method for sorting genes. The method comprises producing first double stranded (ds) cDNA from mRNA by reverse transcription using a poly-T primer. The ds cDNA is then digested with a restriction ensyme that generates cohesive ends with overhanging single stranded sequence containing a constant number of nucleotides, and the digestion products are ligated to a set of ds DNA oligonucleotide adaptor has at one end, a sequence complementary to a possible overhang and the other end a primer-template sequence specific for the adaptor complementary sequence, and between these two ends the amplified in separate PCR assays, using for each a primer that anneals to polyT and a second primer, from a set that anneals to the CDNA specific primer-template sequences. Amplicons are finally sorted into non-redundant groups defined by the specific primer that annealed to the primer-template sequence and thus primed PCR. The method is useful for producing a collection of non-redundant cDNA groups, especially where every expressed-gene transcript in the original sample is represented by its own subgroup. The method is also useful for isolation, identification can analysis of genes, nalysis and diagnosis of diseases, for studying cell differentiation and in gene therapy. The present sequence was used to illustrate the method of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sorting genes into non-redundant groups, useful e.g. for gene isolation, diagnosis and in gene therapy, by amplifying cDNA fragments attached to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Virucide; hepatotropic; antiinflammatory; antiviral; OAS; murine; 2'-5'-oligoadenylate synthase; Flavivirus infection; PCR; primer; ss.
Tail primer #86 from primer set 256 used in gene sorting method.
                                              Gene sorting, PCR primer, disease diagnosis, disease analysis; cell differentiation, gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 1.7%; Score 14.4; DB 1; Length 21; Best Local Similarity 93.8%; Pred. No. 3.4e+02; Matches 15; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                              Zezin-Sonkin D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 21 BP; 6 A; 5 C; 7 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Murine OAS gene isoform 11 PCR primer SEQ ID 19.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Einat P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Fig 13; 67pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Mugasimangalam R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              809 GAACCCTGGTACTGTG 824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABV74836 standard; DNA; 21 BP.
                                                                                                                                                                                                                                                                                         23-MAR-2001; 2001WO-US009392.
                                                                                                                                                                                                                                                                                                                                           30-MAR-2000; 2000US-00538709
                                                                                                                                                                                                                                                                                                                                                                                            (QBIQ-) QBI ENTERPRISES LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAACCCTGGTCCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-626451/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        selective adaptors.
                                                                                                                                                                                   WO200175180-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ulanovsky L,
                                                                                                                                                                                                                                    11-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-MAR-2003
                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABV74836;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 235
ABV74836
     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ65654 to AAZ69578 represent human biallelic markers from the present invention, which contain a polymorphic base at position 24 of their nucleotide sequences. AAZ69579 to AAZ7440 represent amplification primers for the biallelic markers. The biallelic markers of the invention have a variety of uses: they can be used for high density mapping of the human genome, and in complex association studies and haplotyping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agents and diagnostic methods, as well as the characterisation of the differential efficacious responses to and side effects from differentical egents acting on a disease as well as other treatment. N.B. The SEQ ID NOS 2852, 231, 2974, 3035, 3054, 3157, 3227, 3297 and 3367, are not actually given a sequence in the Sequence Listing from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel biallelic markers used to construct a high density disequilibrium map of the human genome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                            Human biallelic marker upstream amplification primer SEQ ID NO:5641.
                                                                                                                                                                                                                                                           Human genome, biallelic marker, high density disequilibrium map, genomic map, haplotype; polymorphic base; genotyping; haplotyping; hybridisation; identification; characterisation; maplification, single nucleotide polymorphism; SNP, PCR primer; amplification; single nucleotide polymorphism; SNP, PCR primer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.7%; Score 14.4; DB 1; Length 21; 93.8%; Pred. No. 3.4e+02; Live 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 21 BP; 4 A; 1 C; 8 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chumakov I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 8; Page 1433; 2745pp; English.
                                                       AAZ71285 standard; DNA; 21 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               514 GTTTGGCATTTGGGAG 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-IB000822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0082614P.
98US-0109732P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABA10093/c
ID ABA10093 standard; DNA; 21
                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-FEB-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Blumenfeld M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-013267/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                            diagnosis; ss
                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W09954500-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-APR-1998;
23-NOV-1998;
```

. 0

Gaps

; 0

ABA10093;

SYSKEX

RESULT 234

ð

```
The present invention relates to a method for identifying compounds (1) that can stimulate a gene of the OAS (2'-5'-oligoadenylate synthase) can stimulate a gene of the OAS (2'-5'-oligoadenylate synthase) can carture of cells from a non-bunan mammal (Flyr/Flyr or Flyr/Flyr; indicating resistance or sensitivity to Flavivirus infection); (b) creating cells with test compound; and (c) measuring activity of OAS gene reating infections by Flavivirus (e.g. hepatitis C; dengue; yellow fever and various forms of encephaltitis). Genomic OAS DNA and derived of infection, (b) in screening for are useful: (a) for treating Flavivirus infection, (b) in screening for are useful: (a) for treating Flavivirus or evaluating sensitivity of subjects to Flavivirus infection and their risk of developing severe forms of such infections. The present sequence is a por primer for murine OAS, which was used in an example from the
                                                                                                                                                                                                                                                                              Identifying stimulators of oligoadenylate synthase family genes, useful as antiviral agents against Flavivirus, also mutated genes responsible for sensitivity to virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      / Match 1.7%; Score 14.4; DB 1; Length 21; Local Similarity 93.8%; Pred. No. 3.4e+02; les 15; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Probe HIVpol7p41-16 used in normalization of PamChip assay
                                                                                                                                                                                                     Simon-Chazottes D, Montagutelli X;
, Deubel V, Bonhomme F, Lucas M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 21 BP; 7 A; 8 C; 2 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                    Claim 16; Page 81; 93pp; French.
                                                                                                                                                     (INSP ) INST PASTEUR.
(CNRS ) CNRS CENT NAT RECH SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          612 GIGGCCAICICAACCA 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-DEC-2002; 2002WO-EP014426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-DEC-2001; 2001EP-00870295
                                                                                        04-APR-2002; 2002WO-FR001169.
                                                                                                                       04-APR-2001; 2001FR-00004598.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HIV; probe; microarray; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACC84387 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                       Guenet J, Mashimo T, S:
Frenkiel M, Despres P,
                                                                                                                                                                                                                                                     WPI; 2003-058566/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003054551-A1.
                              WO200281741-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-JUL-2003.
                                                           17-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S:
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACC84387;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
```

```
The present sequence is that of HIVpol7p41-16, a specific receptor (probe) used in an array system to detect a target sequence (see ACC84393). This sequence has I mismatch with the target. It is one of a set of Il specific receptors (see ACC84382-92) used in normalization of a pamchip assay as an example of the method of the invention. The invention constitution methods and arrays suited to correct for signal errors due to variation in sample preparation. Methods and compositions for performing quantitative array-based assays are provided. A reporter and an analyte consequent on the array used in the method contain an internal reference present on the array used in the method contain an internal reference which can be bound by the reporter. The method is useful for the identification of an analyte in a biological sample, particularly for use in expression profilling assay, genotyping, sequence determination by hybridisation, gene quantitation, gene abnormality analysis (MAPH), PCR, MASBA or TYRAS (claimed)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAVB17; G-protein coupled receptor; receptor; antiinflammatory; antiasthmatic; gastrointestinal; cytostatic; nootropic; antiarthritic; antirheumatic; gene therapy; purinergic; PCR; primer; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gassenhuber J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human purinergic G-protein coupled receptor GAVE17 forward PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
1.7%; Score 14.4; DB 1; Length 21;
Best Local Similarity 93.8%; Pred. No. 3.4e+02;
Matches 15; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cai J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 21 BP; 8 A; 2 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Weissensee P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eishingdrelo H, Kuntzweiler T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADE85786 standard; DNA; 21 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 766 CAGAACTGGAGAAGAA 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-APR-2003; 2003WO-US010448.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-APR-2002; 2002US-0371131P.
08-NOV-2002; 2002GB-00026102.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 CAGAACTGGAGAAGGA 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (AVET ) AVENTIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-833701/77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003087125-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADE85786;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADE85786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Вb
```

.; 0

Gaps ;

BP

Identification of analyte in biological sample, involves determining signal of reporter molecule binding to internal reference, determining signal of analyte binding to receptor, and normalizing signals.

WPI; 2003-569292/53

28-MAY-2002; 2002US-0383666P

FET JUL 30 10:32:03 200

(PAMG-) PAMGENE BV. an Beuningen MGJ; Example 4; Page 41; 61pp; English.

```
New nucleic acid encoding a nucleotide binding G-protein coupled rece comprising a sequence of GAVE17, useful for treating asthma, Crohn's disease, carcinomas, multiple sclerosis or rheumatoid arthritis.
                                                                                                                                                                                                              AAA37008 standard; DNA; 22 BP.
                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                        (GEHO ) GEN HOSPITAL CORP.
                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-246531/21.
                                                                                                                                                Local Similarity
les 15; Conserv
                                                                                                                                                                                                                                                                                                        WO200011016-A1.
                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                25-AUG-1999;
                                                                                                                                                                                                                                                                                                                                            25-AUG-1998;
                                                                                                                                                                                                                                      03-AUG-2000
                                                                                                                                                                                                                                                                                                                    02-MAR-2000,
                                                                                                                                            Query Match
                                                                                                                                                                                                                          AAA37008;
                                                                                                                                                        Matches
                                                                                                                                                                                                  RESULT 238
                                                                                                                                                                                                         AAA37008,
 CCCXX8XXBXXBXXBXXBXXBXXBXXBXXBXXBXXBXXCCCCXX
                                                                                                                                                                    8
                                                                                                                                                                              g
```

The present sequence is that of a forward PCR primer for human GAVE17, a novel purinergic G-protein coupled receptor. The forward primer, a reverse primer ADE8787 and a TagMan probe ADE8788 were used to examine GAVE17 mRNA expression levels in different tissues. High levels of GAVE17 mRNA expression levels in different tissues. High levels of GAVE17 proteins ADE85778 and nucleic acids ADE85777, fusion proteins, antigenic peptides and anti-CAVE-17 antibodies, recombinant expression vectors, host cells and non-human transgenic animals. Diagnostic, attagenis and non-human transgenic animals. Diagnostic, attagenist or inverse agonist of GAVE17 capable of modulating GAVE17 antagenist or inverse agonist of GAVE17 capable of modulating GAVE17 associated with nucleotide metabolism dysfunction (claimed), e.g. asthma, crohn's disease, carcinomas, multiple sclerosis, or rheumatoid arthritis, by administering the therapeutic composition to a patient. Sequence 21 BP; 4 A; 8 C; 3 G; 6 T; 0 U; 0 Other; Example 7; SEQ ID NO 10; 95pp; English

Gaps 0, 1.7%; Score 14.4; DB 1; Length 21; 93.8%; Pred. No. 3.4e+02; 1; Indels 0; Mismatches 209 ITCCCAGCCCTCTCCA 224 Conservative

21 rrcccagcccrcraca

Human dysferlin exon amplification and mutation screening primer #270.

Human, dysferlin, mutant, identification, chromosome 2p12-14, detection, muscular dystrophy, diagnosis, hereditary muscular dystrophy, miyoshi myopathy; limb girdle muscular dystrophy; primer; amplification; screening; ss.

99WO-US019394

98US-0097930P

UYPI-) UNIV PITTSBURGH.

Chou F; Brown RH, Liu J, Hoffman E, Dysferlin polynucleotide, its mutant form useful for diagnosis and treatment of hereditary muscular dystrophies e.g. miyoshi myopathy and limb girdle muscular dystrophy.

Claim 4; Page 35; 136pp; English.

The present invention describes an isolated dysferlin DNA of 20-25 nucleotides in length, comprising a nucleotide sequence specifically selected from nucleotides 911-913, 929-948, 1019-1038, 1392-1411, 1424-

1443, 1484-1503, 1499-1518, 1543-1565, 1715-1734, 1714-1759, 2241-2260, 2864-2883, 2978-2997, 3057-3076, 3188-3217, 3252-3771, 4356-4375, 4665-4684, 5015-5034, 5610-5629, 5726-5735, 6035-6054, 6179-6198, 6243-6263 and 6229-6548 of the human dysferin nucleotide sequence given in AA36744. Dysferlin nucleotide sequences containing specific mutations can be used for diagnosing a patient, a foetus or a pre-embryo at risk of dysferlin gene in biological samples from patients. Alternatively, the dysferlin sample containing genomic DNA can be incubated with a biological samples from patients. Alternatively, the biological samples from patients. Alternatively, the biological sample senomic DNA can be incubated with a biological sample containing genomic DNA can be incubated with a restriction enzyme, preferably BanII, BSp12861, RsaI, HanI, HaeIII, BSp1286, NlaIV, NlaIII, BG91, AvaII, BSt281, PleI, HaeI, HaeIII, BSp1286, NlaIV, NlaIII, Eagl, HinfI, TfiI, SfaNI or FokI and the presence or absence of a restriction enzyme site in the sample is detected as an indication of the presence or absence of a particular mutation in the sample. Dysferlin polynucleotides are useful for treating hereditary muscular dystrophy-28 (LGMB-2B). Wh and LGMB-2B map to the human chromosome 2p12-14 region between the genetic markers D2S286. The present sequence represents a primer for human dysferlin

Sequence 22 BP; 5 A; 3 C; 7 G; 7 T; 0 U; 0 Other;

·, 1.7%; Score 14.4; DB 1; Length 22; 93.8%; Pred. No. 3.6e+02; tive 0; Mismatches 1; Indels Query Match
Best Local Similarity 93.8%

ò

Gaps

ઠે d

. 0

RESULT 239

AAN90485 standard; DNA; 19 BP

(first entry) 03-NOV-1989 AAN90485;

Escherichia coli 23S rRNA oligo probe.

Escherichia coli, oligonucleotide probe, periodontal disease, mouth diseases, 23S rRNA, species-specific.

Escherichia coli.

WO8906704-A.

27-JUL-1989

89WO-US000072. 09-JAN-1989;

88US-00142106 11-JAN-1988;

(MICR-) MICROPROBE CORP

Dix K; Watanabe SM, Schwartz DE, Kanemoto RH,

WPI; 1989-233857/32.

-bacterial Oligo-nucleotide probes for detection of periodontal pathogens comprising a segment of nucleic acid capable of hybridising to ribosomal RNA.

Claim 38; Page 51; 53pp; English.

23S rRNA oligonucleotide probe (23UPF) specific for Escherichia coli, corresp, to bases 1685-1703 of E. coli. It is a universal primer. See AAN90418-87

Sequence 19 BP; 3 A; 7 C; 4 G; 5 T; 0 U; 0 Other;

1.7%; Score 14.2; DB 1; Length 19;

Query Match

```
The present invention describes a bacterial cell having protection against conditions lethal to an unprotected bacterial cell, and which is obtained by subjecting a bacterial cell to treatment with a sublethal colled of stress. Also described are: (1) a nutritive composition comprising bacteria, and (2) a method of protecting a bacterial cell against stress by treating a bacterial cell with a sublethal level of stress consisting of thermal shock, osmotic shock, pH shock, oxidative stress, chemical stress, nutritional stress, UV-stress or cold stress. The new cells having protection against lethal conditions are useful in the fermentation of fermence by silfidobacteria and lactobacilli may be used in prophylaxis or treatment of ailments including gastrointestinal infections. The protected bacterial cells are more advantageous for use in large-scale processes than those unprotected cells. The present colling is used in the sequence represents a universal probe which is used in the present
                   ö
                                                                                                                                                                                                                                                                                                         Bacterial protection; thermal shock; osmotic shock; pH shock; oxidative stress; UV-stress; until product; Bifidobacterium; lactobacillus; prophylaxis; teratment; gastrointestinal infection; probe; ss.
                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New bacterial cells having protection against stress and adverse conditions obtained by subjecting cells to sublethal stress level treatment are useful in large-scale processes e.g. production of fermented products.
                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 14.2; DB 1; Length 19;
Pred. No. 3.2e+02;
0; Mismatches 3; Indels
Pred. No. 3.2e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seguence 19 BP; 3 A; 7 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure, Page 9; 23pp; English.
                                                   234
                                                                     CCTTCTCCCGAAGTTACGG 19
                   0
                                                                                                                                                                      ВÞ
                                                   216 CCCTCTCCAGAAGTGACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-JUN-2000; 2000WO-EP005403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0138946P
84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84.2%;
                                                                                                                                                                      AAF26629 standard; DNA; 19
                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 1.7
Best Local Similarity 84.2
Matches 16; Conservative
                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (NEST ) SOC PROD NESTLE
                                                                                                                                                                                                                                                                       Universal probe 1028R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-112222/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zink R;
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                             WO200077186-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-JUN-1999;
                                                                                                                                                                                                                                       27-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-DEC-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Schmidt G,
                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                        AAF26629;
                                                                                                                                    g
```

Smith RD,

Mcdonough SH, Kop JA, (GENP-) GEN-PROBE INC.

86US-00934244. 87US-00083542. 87WO-US003009. 8US-00806929. 91US-00806929.

22-FEB-1994;

95US-00454063.

30-MAY-1995;

24-NOV-1986; 07-AUG-1987; 24-NOV-1987 09-DEC-1988

Probe; PCR primer; 5S rRNA; 16S rRNA; 23S rRNA; 28S rRNA; 18S rRNA; Mycobacterium; Enterococcus; Chlamydia; Mycoplasma; E. coli; Legionella; Salmonella; Pseudomonas; Campylobacter; Neisseria gonorrheae; fungus;

bacterium; ss.

US6150517-A. 21-NOV-2000.

Fungi.

Fungal 28S rRNA specific sequence #1.

(first entry)

20-MAR-2001

踞

AAF23108 standard; DNA; 19

AAF23108 ID AAF2

```
ö
                                                                                                                                                                                                                                                                                                                                                     Preparing a probe for nucleic acid hybridization assays comprises constructing a nucleotide polymer sufficiently complementary to hybridize to an rRNA region that distinguishes non-viral target from non-viral non-target species.
                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention provides novel methods of producing probes for use in the identification of a number of microorganisms. These include E. coli, Mycobacteria, Mycoplasma, Campylobacter, Chlamydia, Entercbacter, Legionella, Salmonella, Pseudomonas, Neisseria gonorrheae, fungi and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                primer; 5S rRNA; 16S rRNA; 23S rRNA; 28S rRNA; 18S rRNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.7%; Score 14.2; DB 1; Length 19; 84.2%; Pred. No. 3.28+02; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19 BP; 3 A; 7 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Legionella 23S rRNA specific sequence #2.
                                                                                                                                                                                                                                                                                                                                                                                                                 Example 20; Col 61; 75pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   216 CCCTCTCCAGAAGTGACGG 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               路
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CCTTCTCCCGAAGTTACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAF23056 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similaricy .
nes 16; Conservative
                                                                                                                                                                                                                                                                                                                                      WPI; 2001-060029/07.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Probe; PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAF23056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 242
AAF23056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
ò
```

; 0

Gaps

.. 0

216 CCCTCTCCAGAGTGACGG 234

cerrereceaagrades 19

US6150517-A.

21-NOV-2000

24-NOV-1986

```
Preparing a probe for nucleic acid hybridization assays comprises constructing a nucleotide polymer sufficiently complementary to hybridize to an rRNA region that distinguishes non-viral target from non-viral non-
                                                                                                                                                                                                                                                                                                                          The present invention provides novel methods of producing probes for use in the identification of a number of microorganisms. These include E. coli, Mycobacteria, Mycoplasma, Campylobacter, Chlamydia, Enrerobacter, Legionella, Pseudomonas, Neisseria gonorrheae, fungi and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Virion RNA polymerase; nuclear magnetic resonance; NMR; microinjection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7%; Score 14.2; DB 1; Length 19;
84.2%; Pred. No. 3.2e+02;
ative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteriophage N4 vRNAP gene terminator signal sequence #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 19 BP; 3 A; 7 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rothman-Denes LB;
                                                                                                                                       Hogan JJ;
                                                                                                                                         Smith RD,
                                                                                                                                                                                                                                                                                            Example 11; Col 37; 75pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       216 CCCTCTCCAGAAGTGACGG 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19
87US-00083542.
87WO-US003009.
88US-00295208.
91US-00806929.
94US-00200866.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kazmierczak KM, Davydova EK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAD52991 standard; DNA; 19 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTTCTCCCGAAGTTACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-MAY-2002; 2002WO-US016295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-MAY-2001; 2001US-0292845P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                         Kop JA,
                                                                                                        (GENP-) GEN-PROBE INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Thes 16; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYCH-) UNIV CHICAGO
                                                                                                                                                                        WPI; 2001-060029/07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-140368/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacteriophage N4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200295002-A2.
                                                                                                                                                                                                                                                             target species.
                                                                                                                                         Mcdonough SH,
                                    09-DEC-1988;
11-DEC-1991;
                                                                      22-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-NOV-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAD52991;
                                                                                                                                                                                                                                                                                                                                                                                                   bacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VRNAP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAD52991/c
     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ó,
                                                                                                                                                                                                                                                                                                                                                                                                                                   Preparing a probe for nucleic acid hybridization assays comprises constructing a nucleotide polymer sufficiently complementary to hybridize to an rRNA region that distinguishes non-viral target from non-viral non-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention provides novel methods of producing probes for use in the identification of a number of microorganisms. These include E. coli, Mycobacteria, Mycoplasma, Campylobacter, Chlamydia, Enterobacter, Legionella, Salmonella, Pseudomonas, Neisseria gonorrheae, fungi and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Probe, PCR primer, 5S rRNA, 16S rRNA, 23S rRNA, 28S rRNA, 18S rRNA, Mycobacterium, Enterococcus, Chlamydia, Mycoplasma; E. coli; Legionella; Salmonella, Pseudomonas, Campylobacter, Neisseria gonorrheae, fungus; bacterium; ss.
   Mycobacterium; Enterococcus; Chlamydia; Mycoplasma; E. coli; Legionella; Salmonella; Pseudomonas; Campylobacter; 'Neisseria gonorrheae; fungus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 19 BP; 3 A; 7 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 84.2%; Pred. No. 3.2e+02;
Matches 16; Conservative 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C. trachomatis 23S rRNA specific sequence #2.
                                                                                                                                                                                                                                                                                                                                                                  Hogan JJ;
                                                                                                                                                                                                                                                                                                                                                                  Smith RD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 10; Col 34; 75pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                216 CCCTCTCCAGAAGTGACGG 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ccricicceaagriaceg 19
                                                                                                                                                                                                        86US-00934244.
87US-00083542.
87WO-US003009.
88US-00255208.
91US-00806929.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAF23065 standard; DNA; 19 BP.
                                                                                                                                                                           95US-00454063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                Kop JA,
                                                                                                                                                                                                                                                                                                                                  (GENP-) GEN-PROBE INC
                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-060029/07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      target species
                                           bacterium; ss.
                                                                          Legionella sp.
                                                                                                                                                                                                                                                                                                                                                                Mcdonough SH,
                                                                                                                                                                                                                                                             09-DEC-1988;
11-DEC-1991;
22-FEB-1994;
                                                                                                                                                                           30-MAY-1995;
                                                                                                                                                                                                                              07-AUG-1987;
24-NOV-1987;
```

bacteria

ö

Gaps

.; 0

The invention relates to bacteriophage N4-coded virion RNA polymerase Example 4; Page 164; 165pp; English.

95US-00454063 86US-00934244

30-MAY-1995;

24-NOV-1986.

Chlamydia trachomatis.

US6150517-A 21-NOV-2000

20-MAR-2001

AAF23065;

RESULT 243 AAF23065

à

New nucleic acid encoding an N4 virion RNA polymerase for e.g. synthesizing RNAs of a desired sequence, RNAs for use as probes in hybridization studies or Southern or Northern blot analysis, and RNA:DNA

Sequence 19 BP; 3 A; 7 C; 3 G; 2 T; 0 U; 4 Other;

```
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention comprises an intercalator pseudonucleotide that is useful for separating sequence specific DNA(s) from a mixture comprising mucleic sedies. The intercalator pseudonucleotide is also useful for detecting sequence specific DNA (target DNA) in a mixture comprising nucleic acids, detecting a sequence specific RNA in a mixture comprising nucleic acids, for inhibiting a DNAse and/or RNAse, and modulating transcription of one or more specific DNA sequences. The present DNA sequence was used in the exemplification of the invention
(VRNAP) and its nucleic acid. The nucleic acid is used to make an N4 YRNAP which is useful: in the synthesis of RNAs of a desired sequence, RNAs for use as probes in hybridisation studies or Southern or Northern blot analysis, and RNA:DNA hybrids for nuclear magnetic resonance (RNR) structure determination; for in vitro studies of spliceosome assembly, splicing reactions and antisense experiments; for in vitro translation or microinjection; and for nucleic acid amplification. The present sequence is Bacteriophage N4 vRNAP gene terminator signal sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel intercalator pseudonucleotide useful for separating sequence specific DNAs from mixture comprising nucleic acids, or for detecting sequence specific DNA or RNA in a mixture comprising nucleic acid and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pseudonucleotide; DNA separation; DNA detection; ss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                   Match 1.7%; Score 14.2; DB 1; Length 19; Local Similarity 84.2%; Pred. No. 3.2e+02; les 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Intercalator pseudonucleotide-related oligonucleotide
                                                                                                                                                                                                                                                                                                                         Sequence 19 BP; 3 A; 6 C; 4 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 14; Page 226; 313pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 326 AGAAGCTGTGGAGCAACTT 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-2001; 2001DK-00001897.
18-DEC-2001; 2001DK-00001898.
18-DEC-2001; 2001DK-00001899.
18-DEC-2001; 2001DK-00001900.
20-MAR-2002; 2002DK-0001575.
14-CCT-2002; 2002DK-00001577.
14-CCT-2002; 2002DK-00001577.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAAGCIGCGGAGCAGCTI 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-DEC-2002; 2002WO-DK000876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAL52281 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pedersen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-618020/58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Christensen UB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (UNES-) UNEST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Intercalator
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        analogs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19
                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAL52281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AALS2281/
NALS2281/
NALS2281/
NALS2281/
NAC AALS
XXX AALS
XXX AALS
XXX Inte
XXX Inte
XXX Unid
XXX Unid
XXX Unid
XXX Unid
XXX I8-D
XX I8-D
                  888666666688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
ö
                                ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The sequences (AAQ53077-Q53136) are used in the invention to detect specific genes without the use of radio-isotopes. Detection is carried out by hybridisation of denatured (ss) sample DNA with a (ss) nucleic acid probe, complementary to the target sequence. Hybridisation occurs on the surface of an electrode or optical fibre and detection is visualised by the addition of an entity that recognises (ds) hybridised DNA and is electrochemically / photochemically active
                                                                                                                                                                                                                                                                             detection, radio-isotopes, target gene, electrode, detection; cal fibre, hybridise, hybridisation, electrochemical; photochemical;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Detection method of gene without using radio-isotope - by hybridisation of nucleic acid probe which is single strand having complementary sequence of gene and single strand denatured sample DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                Gaps
                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.7%; Score 14.2; DB 1; Length 20;
84.2%; Pred. No. 3.5e+02;
ive 0; Mismatches 3; Indels
                                Indels
 Score 14.2; DB 1; Length
Pred. No. 3.2e+02;
4; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 9 A; 2 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antisense oligonucleotide to the IL-1 beta gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 23; 26pp; Japanese.
                                                            317 AGACTGCAGAGAAGCTGTG 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        767 AGAACTGGAGAAGAGTGT 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ACAGCTGGAGAGAGAGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP
                                                                                                                                                                                                                                                                                                                                                                                                                              92JP-00242397.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         92JP-00025621.
                                                                            1.7%;
                                                                                                                                                                AAQ53128 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAQ58461 standard; DNA; 20
                                                                                                                                                                                                                                                    Gene detection sequence 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
Query Match
Best Local Similarity 68.4
Matches 13; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 84.2
Matches 16, Conservative
                                                                                                                                                                                                                                                                                                             electrolysis; probe; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1993-382240/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TOKE ) TOSHIBA KK.
                                                                                                                                                                                                                                                                                                                                                                      JP05285000-A.
                                                                                                                                                                                                                                                                                                                                                                                                                               10-SEP-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-FEB-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-SEP-1994
                                                                                                                                                                                                                         03-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                02-NOV-1993.
                                                                                                                                                                                                                                                                                                                                           Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAQ58461;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                               optical
                                                                                                                                  RESULT 246
AAQ53128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 247
                                                                                                                                                                                                                                                                                  Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAO58461/0
ID AAO50
XX
AC AAO50
XX
DT 22-S0
XX
DT 22-S0
XX
                                                                                      셤
                                                                                                                                                                 ò
```

ب*د ا* جين

```
89US-00322550.
89WO-US003747.
90US-00613142.
93US-00050743.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HOFF ) HOFFMANN LA ROCHE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGTCTGCAGAAAAGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93US-00126452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95US-00474542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88US-00243486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAT44752 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 84.2
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Resnick RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1996-299903/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-MAR-1989;
09-SEP-1989;
14-NOV-1990;
20-APR-1993;
24-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-MAR-2003
29-JAN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US5527898-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-SEP-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       virus types
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAT44752;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bauer HM,
                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAT44752

110

AAT44752

AAT44752

AAT44752

AAT4 AAT4

AAT4752

AAT4 AAT4

AAT44752

AAT4 AAT4

AAT44752

AAT474752

AAT47476

FFX8X5000000X8
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                    New anti:sense phospho:oligo:nucleotide - esp. corresp. to interleukin-1-
beta sense sequence, useful to inhibit chronic inflammatory diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Detection of human papilloma virus DNA by amplification - using specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequences (AAQ58558-61) are antisense oligonuclectides that are used to inhibit the production of interleukin-1-beta (AAQ58462). The oligonuclectides are useful for the inhibition of inflammatory diseases such as chronic joint rheumatism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human papilloma virus; primer; detection; diagnosis; genital; oral; carcinomas; research; PAP88; specific; MY48; internal; typing; PCR; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                     Antisense; interleukin-1-beta; IL-1 beta; phospho-oligonucleotide; inhibit; chronic inflammatory disease; rheumatism; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human papilloma virus PAP88 specific internal PCR primer MY48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bauer HM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 3 A; 7 C; 5 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Manos MM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       744 GCCTTGGTCCTTAAGGAGA 762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Greer CE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 2; Page 2; 6pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19 GCCTTGGGCCTCAAGGAAA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               88US-00243486.
89US-00322550.
89WO-US003747.
90US-00613142.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HOFF ) HOFFMANN LA ROCHE INC
                                                                                                                                                                                                                                                                                                   92JP-00213519.
                                                                                                                                                                                                                                                   92JP-00213519.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93US-00050743.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAQ98660 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16; Conservative
                                                                                                                                                                                                                                                                                                                                                  (LTTK-) LTT KENKYUSHO KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Resnick RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1995-319884/41.
                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1994-089330/11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-MAR-1989;
09-SEP-1989;
14-NOV-1990;
                                                                                                                                                 JP06041185-A
                                                                                                                                                                                                                                                   16-JUL-1992;
                                                                                                                                                                                                                                                                                                   16-JUL-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-SEP-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAR-2003
10-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JS5447839-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-SEP-1995
                                                                                                                                                                                                   LS-FEB-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAQ98660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ting Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4AQ98660
```

8 셤

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to new oligonucleotide probes and primers used for the detection of human papillomaviruses (HPV) which are not genital types 6, 11, 16, 18 or 33. The probes and primers AAV44608-T44633 are esp. used to detect HPV types 26, 31, 318, 35, 39, 40, 43, 45, 51-59 and 68. The primers can be used to detect these HPV types in conjunction with the consensus primers and typing probes AAV44733-T44906, which are based on and amplify fragments of the 11, E6, E7 and E1 regions of the HPV sequences. Detection of the amplification prods. is done with probes derived from consensus sequences found in all characterised HPV sequences. Primers AAV4451-2 are used to amplify a fragment of the
                                                                                                                                                                                                          The human papilloma virus (HPV) specific primers AAQ98655-Q98662 were used to amplify HPV nucleic acid sequences. The amplified sequences were then screened using labelled probes, which detected and/or typed the HPV sequences for research or diagnostic purposes, e.g. to identify HPV that are implicated in genital or oral carcinomas. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nucleic acid hybridisation probes - specific for selected human papilloma
consensus primer pairs and pref. detection with generic or type specific probes for use in research and diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gravitt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Probe; primer; PCR; polymerase chain reaction; amplification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.7%; Score 14.2; DB 1; Length 20;
84.2%; Pred. No. 3.5e+02;
tive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TX,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Internal PCR primer MY48 to generate generic probe.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20 BP; 6 A; 4 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Manos MM,
                                                                                                                               Disclosure; Col 9-10; 36pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human papillomavirus; consensus; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Col 19; 96pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Greer CE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               316 AAGACTGCAGAGAAGCTGT 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP.
```

BP.

```
PCR; primer; amplify; polymerase chain reaction; bacteriophage; Ml3mpl8; cystic fibrosis transmembrane conductance regulator gene; multiplex PCR; chimer; primer; generic screening; mutation detection; CFTR; Wilms Tumour gene; beta-thalassaemia gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Universal primer used for multiplex DNA amplification - allows simultaneous amplification of multiple DNA target sequences for high through-put genetic screening.
                                                                                                                                                       Variant #5 of universal primer sequence for M13mp18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 7; Page 10; 38pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                             96WO-US009637.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95US-00474450.
                         AAT47349 standard; DNA; 20
                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GENZ ) GENZYME CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1997-052372/05.
                                                                                                                                                                                                                                                                                                                                                       WO9641012-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                           06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                 19-DEC-1996.
                                                                                                             10-SEP-1997
                                                                                                                                                                                                                                                                                                           Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shuber AP;
                                                                   AAT47349;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
    AAT47349
                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence is an internal primer for the PCR amplification of a papillomavirus 88 (PAP88) specific generic probe. (Updated on 25-WAR-2003 to correct PF field.) (Updated on 25-WAR-2003 to correct PF field.)
highly divergent isolate HPV PAP88 L1 region for use as a generic probe to determine whether the HPV sequences have been successfully amplified in the reaction. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New oligo:nucleotide probes for human papilloma-virus - used for detecting and typing HPV and for detecting previously unknown HPV types and subtypes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Papillomavirus 88; PAP88; generic probe; detection; primer; internal; polymerase chain reaction; PCR; amplification; ss.
                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Resnick RM;
                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               primer MY48 for papillomavirus 88 generic probe.
                                                                                                                             Query Match
1.7%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 3.5e+02;
Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Greer CE,
                                                                                        Sequence 20 BP; 6 A; 4 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 6 A; 4 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bauer HM, Zhang TY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Col 63-64; 94pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (HOFF ) ROCHE MOLECULAR SYSTEMS INC.
                                                                                                                                                                                                                     316 AAGACTGCAGAGAGCTGT 334
                                                                                                                                                                                                                                                               AGGTCTGCAGAAAAGCTGT 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88US-00243486.
89US-00322550.
89WO-US003747.
90US-00613142.
93US-00126452.
                                                                                                                                                                                                                                                                                                                                                                          AAT77876 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95US-00457648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 84.2 es 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Impraim CC, Manos MM, Gravitt PE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1997-332084/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-MAR-1989;
29-AUG-1989;
14-NOV-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Internal PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-SEP-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-APR-1993;
24-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US5639871-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                      AAT77876;
                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Loca
Matches
                                                                                                                                                                                                                                                                                                                              AAT77876

AAT77876

AAT77876

AACA AAT7

AACA

AAC
                                                                                                                                                                                                                                                          셤
  8X3333
                                                                                                                                                                                                                        ð
```

```
AAT AAT 14345-T47374 represent variants of a universal primer sequence (see AAT 47344) derived from the bacteriophage vector M13mp18. This sequence can be used as half of the DNA primer of the invention. The primers are used for amplification of a target DNA sequence, and can be used in a multiplex PCR amplification. The primers have the sequence 5'-XY-3', where X is a sequence that does not hybridise to the target sequence of such as this sequence. The melting temperature of a hybrid between X and the target sequence. The melting temperature of a hybrid between X and the target sequence. The melting temperature of a hybrid between X and the target sequence. The melting temperature of a hybrid between X and the transperson to into a sequence of other sequences) is 60 degrees C. During early cycles of amplification, products are synthesised that contain the chimeric primers on either end. The primers then serve as high stringency recognition sequences for subsequent rounds of and their targets in a multiplex amplification reaction is normalised, thereby reducing preferential amplification reaction is normalised, thereby reducing preferential amplification reaction is normalised, commerce to comprise a 5' universal domain and a 3' target-specific domain. They are used for the simultaneous PCR amplification of multiple defined targets e.g. to detect mutations in genes like the multiple defined targets e.g. to detect mutations in genes like the multiple defined targets e.g. to detect mutations in genes like the contained the presence of multiple defined targets e.g. to detect mutations in genes like the manner of the presence of multiple defined targets of the conductance regulator (CFTR), the Milms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 1.7%; Score 14.2; DB 1; Length 20; Best Local Similarity 84.2%; Pred. No. 3.5e+02; Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 3 A; 8 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tumour, and the beta-thalassaemia genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     606 GIGGACGIGGCCAICICAA 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGGCCGGGCCATCTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAT48684/c
ID AAT48684 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
```

. 0

Gaps

ô

316 AAGACTGCAGAGAAGCTGT 334

à d

AGGTCTGCAGAAAAGCTGT 20

N

RESULT 251

schu568-1.rng

```
(first entry)
                                                                                                                                                                                                                                                                                                   03-APR-1997;
                                                                                                                                                                                                                                                                                                                                         04-APR-1996;
                                      20-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-MAR-2003
04-JUN-1998
                                                                                                                                                                                                                    EP799897-A1
                                                                                                                                                                                                                                                            08-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                       Morris MS,
                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV17423;
AAV01932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                containing a mutated codon. The method involves: either cleaving a human subject's genomic DNA with a restriction enzyme to produce DNA fragments and treating the fragments to obtain single-stranded DNA molecules or solating the subject's polyA+ mRNA, contacting the single-stranded DNA molecules or polyA+ mRNA under hybridising conditions with a labelled synthetic DNA molecule, optionally bound to a solid support, comprising 12-20 nucleotides, where the synthetic DNA molecule is 5'-B-0-D-3' in the case of single-stranded DNA or is complementary to 5'-B-0-D-3' in the case of single-stranded DNA or is complementary to 5'-B-0-D-3' in the case of single-stranded DNA or is complementary to 5'-B-0-D-3' in the case of polyA+ mRNA, B = 0-9 nucleotides having a sequence complementary to a sequence of the activated ras gene 5' of the mutated codon, D = 0-12 nucleotides having a sequence complementary to a sequence in the activated ras gene 3' of the mutated codon, provided that B and D contain a total of at least 9 nucleotides, and Q is complementary to the mutated codon, treating the resulting hybridised molecules under conditions permitting only fully complementary molecules under conditions permitting only fully complementary molecules to remain hybridised, and detecting the present sequence represents the synthetic DNA probe used for detecting the activated N-ras gene when the mutated codon is at position 61 and has a single base substitution in the first or second nucleotide position so that it encodes an amino acid other than clud other tumours. (Updated on 25-WAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Detection of activated ras gene - using oligo:nucleotide probes to detect mutated codon.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                      Probe for detecting N-ras gene mutations in the codon at position 61.
                                                                                                                                                           Mutated codon, single base mutation, human, acute myeloid leukaemia, tumour, activated ras gene, N-ras, H-ras, K-ras, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.7%; Score 14.2; DB 1; Length 20; ilarity 84.2%; Pred. No. 3.5e+02; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 2 A; 7 C; 2 G; 9 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               767 AGAACTGGAGAAGAAGTGT 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 25; Col 29; 20pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                 85US-00758104.
87US-00081490.
92US-00873352.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Acadericasasasasast
                                                                                                                                                                                                                                                                                                                                             94US-00264425
                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYLE-) RIJKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bos JL;
                                                               (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1997-086629/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
les 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Van Der Eb AJ,
                                                                                                                                                                                                                                                                                                                                                                                   23-JUL-1985;
04-AUG-1987;
21-APR-1992;
                                                                                                                                                                                                                                                                                                                                             23-JUN-1994;
                                                             25-MAR-2003
02-OCT-1997
                                                                                                                                                                                                                                                              US5591582-A
                                                                                                                                                                                                                                                                                                       07-JAN-1997
                                                                                                                                                                                                                          Synthetic
                       AAT48684;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
```

AAV01932 standard; DNA; 20 BP.

RESULT 253 AAV01932/C ID AAV0193 XX

Best Loca Matches

g

```
minimal hybridization to a nucleic acid. A composition has also been minimal hybridization to a nucleic acid. A composition has also been developed comprising a set of TNA with a constraint region and a variable region, optionally with < 2 c nucleotides, where the variable region for each TNA has a similar Tm, G+C:A+T ratio and length, does not cross-hybridise to a probe NA, and preferably contains an even number of A+G nucleotides, each TNA when aligned with any other TNA of the set has at least 2 nucleotides different. An array of oligonucleotide probes comprising several experimental oligonucleotide probe sets attached to a colid substrate, where each set hybridises to a different target NA under stringent hybridisation conditions, each oligonucleotide probe in the set comprises a variable region, and where the NA probes do not cross hybridise in the array, is also new. The present sequence represents an auxotrophic ORF 20mer tag, which is used in an example of the present invention. The method of synthesising the TNA's and probes are designated permit massive parallel analysis of all the components, especially nucleic acids, in a mixture in a single assay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Selection of sets of tag nucleic acids and generation of probe arrays -
for simultaneous detection of large numbers of nucleic acids in a sample.
                                                          ADB1, auxotrophic yeast gene, probe array, tag, detection, VLSIPS, very large scale immobilised polymer synthesis, parallel analysis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7%; Score 14.2; DB 1; Length 20;
84.2%; Pred. No. 3.5e+02;
ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human papillomavirus; HPV; HPV detection; HPV typing;
L1 type-specific probe; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Davis RW, Mittmann MP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 7 A; 6 C; 5 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Primer MY48 for human papillomavirus typing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       507 ITGGCCAGITTGGCATITG 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 3; Fig 4; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N
Auxotrophic ORF TRP4 20mer tag.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAV17423 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                           97EP-00302313.
                                                                                                                                                                                                                                                                                                                                                                                                                             96US-00626285.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Schoemaker DD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 84.2
nes 16, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (AFFY-) AFFYMETRIX INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1997-482677/45.
```

```
This sequence represents a probe for the N-ras gene, that can be used in the method of the invention. The method is for for detecting a mutation from a non-mutated sequence of a target polynucleotide (TP) in a sample, but using a mismatch binding protein (MBP), comprises: (a) providing a non-cutated and mutated TP; (b) forming duplex of the non-mutated and complex strands of TP in (a); (c) adding a single strand binding protein to the polynucleotide from (b); (d) incubating MBP with an activating agent; (e) adding the incubated MBP from (d) to the con-mutated and one mutated single strand of TP; and (f) detecting the con-mutated and one mutated single strand of TP; and (f) detecting the greence of any MBP bound to TP. The method may be used for early diagnosis of cancer. Binding of MBP to single strands is inhibited by the single strand binding protein. By activating MBP with an activator, before addition to the sample, binding to double strands lacking
       Method for detecting mutation(s) by mismatch binding protein - useful for separating mutation from non-mutated target polynucleotide in sample, used in early diagnosis of cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New antisense compounds used to treat eg. hyperproliferative conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAZ37473-Z37738 represent human mdm2 phosphorothicate oligonucleotides.
AAZ37471, AAZ37472, AAZ37739, AAZ37740 and AAZ37741 are used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human mdm2 gene; proliferation; tumour; phosphorothicate; p53; cancer; antisense; modulation; oligonucleotide; expression; inhibition; hyperproliferation; blood cancer; brain cancer; breast cancer; lung cancer; soft tissue cancer; psoriasis; fibrosis; atherosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                               1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; tive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human mdm2 phosphorothioate oligodeoxynucleotide #12.
                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 2 A; 7 C; 2 G; 9 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Graham MJ, Monia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 2; Page 38; 157pp; English.
                                                                                 Disclosure; Page 9; 24pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20 ACAGCTGGAGAGAGAGT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US006702.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       767 AGAACTGGAGAAGAAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-00048810,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAZ37482 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-JAN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 84.2
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nero P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-610754/52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            restenosis; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Miraglia LJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W09949065-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ37482;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ37482,
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence represents a human papillomavirus (HPV) L1 type-specific primer of the invention. This sequence may be used in conjuncture with L1 specific probes for detecting and typing HPV. Identification and typing of HPV is important as different types of HPV pose different risks for infected individuals. HPV16 and HPV18 have been more consistently identified in higher grades of cervical dysplasia and carcinoma than other HPV types. (Updated on 25-MAR-2003 to correct PR field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                              Human papilloma probes and primers - useful for, e.g. detecting and typing of human papilloma viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Probe; N-ras; mutation detection; mismatch binding protein; cancer diagnosis; single strand binding protein; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Indels
                                                                                                                                                                                                                                                                                               Manos MM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 6 A; 4 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                               Greer CE, Bauer HM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                            (HOFF ) ROCHE MOLECULAR SYSTEMS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     316 AAGACTGCAGAGAAGCTGT 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 AGGTCTGCAGAAAAGCTGT 20
                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 2; Col 10; 37pp; English.
                                                                                                                                                                                          89US-00322550.
90US-00613142.
                                                                                                                                      95US-00452055.
                                                                                                                                                                         88US-00243486.
                                                                                                                                                                                                                             93US-00050743.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96SE-00002062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAV20056 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (PHAA ) PHARMACIA BIOTECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 84.2
                  Synthetic.
Human papillomavirus.
                                                                                                                                                                                                                                                                                               Ting Y, Resnick RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1998-130209/12
                                                                                                                                                                                                                                                                                                                                   WPI; 1998-192210/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Goto M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-ras probe 665T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W09745555-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-MAY-1996;
                                                                                                                                        26-MAY-1995;
                                                                                                                                                                                          10-MAR-1989;
14-NOV-1990;
                                                                                                                                                                                                                           20-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-DEC-1997.
                                                                    US5705627-A.
                                                                                                                                                                         09-SEP-1988;
                                                                                                     06-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hasebe M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV20056;
```

ઠે

ô

1 ACAGCTGGAGAGAGAGT 19

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV73026-V73071 are probes used to detect a single-base mutation in a human ras oncogene. These probes comprise 12-43 nucleotides of formula 5'-B-Q-D-3', Q=3 nucleotides complementary to the mutated codon, and B and D each = 0-0 nucleotides complementary to the ras sequences flanking the mutated codon. The probes are useful for detecting cancers associated with point mutations
 The present invention describes
              novel nucleotide antisense compounds, targetted to the 5' untranslated, translation termination codon, or 3' untranslated region of a nucleic acid encoding human mdm2, that modulates expression of human mdm2. The oligonucleotides mediate their effect by antisense inhibition of hyperproliferative gene expression. The antisense compound is used to treat an animal having a disease or condition associated with mdm2, particularly a hyperproliferative condition, more particularly cancer, especially of the blood, brain, breast, lung or soft tissue, or psoriasis, fibrosis, atherosclerosis or restenosis
                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Probes for detecting ras oncogene point mutations - useful for the diagnosis of cancer associated with single base mutations.
                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                    1.7%; Score 14.2; DB 1; Length 20;
84.2%; Pred. No. 3.5e+02;
tive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
1.7%; Score 14.2; DB 1; Length 20;
Best Local Similarity 64.2%; Pred. No. 3.5e+02;
Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ras oncogene; probe; point mutation; detection; cancer;
                                                                                                                                                                                       Sequence 20 BP; 5 A; 6 C; 3 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 9 A; 2 C; 7 G; 2 T; 0 U; 0 Other;
 exemplification of the present invention.
                                                                                                                                                                                                                                                                                          465 GAGCTCCAGGAACTTGGCA 483
                                                                                                                                                                                                                                                                                                              85US-00758104.
87US-00081490.
92US-00873352.
94US-00264425.
                                                                                                                                                                                                                                                                                                                                                                                                               BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 6; Col 5; 18pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97US-00778543.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human ras oncogene probe #13
                                                                                                                                                                                                                                                                                                                                                                                                             AAV73038 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                         16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (UYLE-) RIJKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bos JL, Van Der Eb AJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-059149/05
                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-JUL-1985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-AUG-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-APR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US5847095-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     38-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV73038
                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                       Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                             RESULT 257
                                                                                                                                                                                                                                                                                                                                                                                           8866666666888888
                                                                                                                                                                                                                                                                                            ઠ
```

```
AAV73084-V73145 are oligomers used in a method to detect a single-base mutation in a human ras oncogene. These probes comprise 12-43 nucleotides of formula 5'-B-Q-D-3', Q=3 nucleotides complementary to the mutated codon, and B and D each = 0-20 nucleotides complementary to the ras sequences flanking the mutated codon. The probes are useful for detecting cancers associated with point mutations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vaccine; eye disease; conventional trachoma, nonendemic trachoma; paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis; nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer; bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Probes for detecting ras oncogene point mutations - useful for the diagnosis of cancer associated with single base mutations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7%; Score 14.2; DB 1; Length 20; 34.2%; Pred. No. 3.5e+02; ve 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                primer used to amplify an ORF of Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                        Ras oncogene; probe; point mutation; detection; cancer; ss.
                                                                                                                                                                                                                                            Human ras oncogene mutant detecting oligomer N-61a.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 2 A; 7 C; 2 G; 9 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Col 19-20; 18pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           767 AGAACTGGAGAAGAAGTGT 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N
                                                       BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   85US-00758104.
87US-00081490.
92US-00873352.
94US-00264425.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97US-00778543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 Acagcreeagagagagr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ilarity 84.2%;
Conservative
                                                       AAV73141 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard; DNA; 20
                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UYLE-) RIJKSUNIV LEIDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Van Der Eb AJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-059149/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-JUL-1985;
04-AUG-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                 US5847095-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-APR-1992
                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                   AAV73141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ04675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ04675;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bos JL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 259
RESULT 258
                   AAV73141/

NX AAV73141/

NX AAV7

NX AAV7

NX AAV7

NX AAV7

NX Ras

NX NX Ras

NX NX Ras

NX Synt

Sy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
```

· 0

Synthetic

ö

ö

767 AGAACTGGAGAAGAGTGT 785

```
PCR primers AAZ01426-Z06209 were used to amplify open reading frames (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs ancode polygeptides (see AAX36754-Y37949) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis; genital diseases such as nongonococcal urctritis, englydmitis, cervicitis, salpingtis, perihappatitis, bartholinitis, penumopathy in breast feeding infants; and venereal lymphogramulomatosis. The polypeptides of the invention may be of use in treating these
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vaccine; eye disease; conventional trachoma; nonendemic trachoma; paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis; nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer; bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; tive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCR primer used to amplify an ORF of Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20 BP; 6 A; 6 C; 6 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genome sequence of Chlamydia trachomatis.
                                                                                                                                   Senome sequence of Chlamydia trachomatis.
                                                                                                                                                                         Disclosure; Page 1813; 1755pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 1458; 1755pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 795 CIGCAGGACTGACTGAACC 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 creadedácceacreaecc 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97FR-00015041.
97FR-00016034.
98US-0107077P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-IB001939.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAZ01622 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 84.2
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-371125/31.
                                                                                             WPI; 1999-371125/31
                   (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W09928475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Griffais R;
                                                       Griffais R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAZ01622;
                                                                                                                                                                                                                                                                                                                                                                                                                                           diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ01622
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                PCR primers AAZ01426-Z06209 were used to amplify open reading frames encode polypeptides (see AAY36754-Y37949) which can be used as vaccines against Chlamydia trachomatis. (see AAZ01425). These ORFs against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion epidymitis, genital diseases such as nongoncoccal uretritis, peneumopathy in breast feeding infants; and veneral lymphogranulomatosis. The polypeptides of the invention may be of use in treating these
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vaccine, eye disease, conventional trachoma, nonendemic trachoma, paratrachoma, inclusion conjunctivitis, gential disease, perihepatitis, nongonococcal uretritis, epidymitis, cervicitis, salpingitis, PCR primer, bartholinitis, pneumopathy, venereal lymphogranulomatosis, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.7%; Score 14.2; DB 1; Length 20;
84.2%; Pred. No. 3.5e+02;
.ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCR primer used to amplify an ORF of Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 6 A; 1 C; 10 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                          Genome seguence of Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 1708; 1755pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           634 AGTCCCGCTCCCTGCAACC 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20 AGTCCCTCTCCCTTTAACC 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97FR-00015041.
97FR-00016034.
98US-0107077P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ05954 standard; DNA; 20 BP
                                                                                                                                                                           97FR-00016034.
                                                                                                                    98WO-IB001939
                                                                                                                                                          97FR-00015041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-IB001939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 84.2
Local Similarity 84.2
es 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chlamydia trachomatis.
  Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                      WPI; 1999-371125/31.
                                                                                                                                                                                                                                      (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-NOV-1997;
17-DEC-1997;
04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W09928475-A2
                                                                                                                    27-NOV-1998;
                                                                                                                                                                           17-DEC-1997;
04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-NOV-1998;
                                      WO9928475-A2
                                                                                                                                                          28-NOV-1997;
                                                                              10-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-JUN-1999
                                                                                                                                                                                                                                                                              Griffais R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ05954;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
```

RESULT 260 AAZ05954

Dp

Best Loca Matches

5 °.,

ö

Gaps . 0 Length 20,

schu568-1.rng

```
CORFS of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs encode polypeptides (see AAX36754-Y37949) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases uch as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis; genital diseases such as nongonococcal uretritis, engiquality, cervicitis, salpingtitis, perimpeptidis, paratracholinitis; phenumopathy in breast feeding infants; and venereal lymphogranulomatosis. The polypeptides of the invention may be of use in treating these
                                                                                                                                                                                                                                                         Gaps
primers AAZ01426-Z06209 were used to amplify open reading frames
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PDZ domain; gene expression; human umbilical vascular endothelial HUVEC; stimulation; tumour necrosis factor; TNF; protein binding; cell; proliferation disorder; cancer; primer; amplification; ss.
                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                          1.7%; Score 14.2; DB 1; Length 20;
84.2%; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                        3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Primer 128 for PDZ domain-containing protein genes.
                                                                                                                                                                                              Seguence 20 BP; 4 A; 4 C; 6 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                    807 CTGAACCCTGGTACTGTGG 825
                                                                                                                                                                                                                                                                                                               CTGAACCTTGGCATTGTGG 19
                                                                                                                                                                                                                                                                                                                                                                                          AAX29926 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-JP003603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97JP-00230356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98JP-00189944
                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-JUL-1999 (first entry)
                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                        AAX29926;
                                                                                                                                                                                                                                                                                                                                                              RESULT 262
   886666666666688888
                                                                                                                                                                                                                                                                                                                셤
```

·.

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAX91991-X97517 represent PCR primers used to amplify open reading frames and other nucleic acid sequences from the genome of Chlamydia pneumoniae (See AAX91990). C. pneumoniae causes respiratory disease such as pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema nodosum or pharyngitis. The polypepides encoded by the open reading frames of the C. pneumoniae genome (see AAY34894- AAX3879) can be used in immunogenic compositions as vaccines. Vectors containing C. pneumoniae especially where the vector directs the expression of a neutralising epitope of C. pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                               Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis; sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                             Gaps
                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                      PCR primer used to amplify an ORF of Chlamydia pneumoniae.
                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seguence 20 BP; 4 A; 4 C; 6 G; 6 T; 0 U; 0 Other;
 Score 14.2; DB 1;
Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence of Chlamydia pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page 1636; Disclosure; 1912pp; English.
                                                        473 GGAACTTGGCATTCCTCAG 491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       460 AGGAAGACTCCAGGAACT 478
                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N
                                                                                                                                                      ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAX91991 standard; DNA; 20 BP.
1.7%;
84.2%;
                                                                                  GGAAATAGGCATTCTTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-IB001890
                                                                                                                                                                                                                                                                                                                                                                                                                                                   97FR-00014673.
98US-0107078P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGAGGCTCCTCAACT
                                                                                                                                                      AAX94007 standard; DNA; 20
                                                                                                                                                                                                               (first entry)
                             16; Conservative
                                                                                                                                                                                                                                                                                                                                      Chlamydophila pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-357842/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 16; Conserv
 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                         20-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                   WO9927105-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Griffais R;
                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                   AAX94007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAX91991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 264
AAX91991/c
ID AAX919
XX
AC AAX919
                                                                                                                            RESULT 263
                             Matches
                                                                                                                                         AAX94007
                                                         ò
                                                                                 g
                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

This sequence represents a primer use to amplify and isolate clones which encode new proteins containing PDZ domains whose expression in human mublical vascular endothelial cells (HTVE) are enfanced by stimulation with tumour necrosis factor (TNF) alpha. The new protein is used to identify proteins which bind to it (particularly to the PDZ domains) and the genes encoding them, for use in the treatment of cell proliferation

Sequence 20 BP; 6 A; 3 C; 5 G; 6 T; 0 U; 0 Other;

disorders such as cancer

Protein containing PDZ domain, whose expression is enhanced by TNF stimulation - plays an important role in protein/protein interactions and is used for screening for proteins for use in treatment of cell proliferation disorders such as cancer.

Example 2; Page 29; 240pp; Japanese.

(CHUG-) CHUGAI RES INST MOLECULAR MEDICINE INC.

Punahashi S, Miyata S; WPI; 1999-167423/14.

```
Comparing AAZ56049-256050 are used to amplify beta-actin from wild type and NRATp.- cartilage cultures. The primers are used in the identification of the role that NRATp plays in cartilage cell growth and differentiation. The modulation of growth or differentiation of cartilage can be carried out through contacting cells deficient in the NFAT family genes, with a test compound. Modulating growth or differentiation of cartilage cells can achieved by contacting growth or differentiation of cartilage cells can achieved by contacting the cells with a modulator of NFAT activity, where the modulator comprises a peptidic compound derived from the calcineurin interacting region of NFATp. The methods of the invention are useful for modulating the growth or differentiation of cartilage cells and endochondral ossification useful for repairing bone defects and fractures in mammals including humans, monkeys, dogs, cats, mice etc. The compound that modulates cartilage cell growth and differentiation is useful for diagnosing disorders such as chondroblastoma, osteolastoma, fibrous dysplasia, ossifying fibroma, osteolastoma, osteolastoma, fibrous dysplasia, ossifying fibroma, osteolastoma, fibrous dysplasia, ossifying fibroma, osteolastoma, reduced or mutated) in the expression of NPATp in cartilage cell. NPATp inhibitory compounds are useful for treating disorders such as rheumatoid arthritis, osteoarthritis and creating disorders such as rheumatoid arthritis, osteoarthritis and creating disorders such as rheumatoid arthritis, osteoarthritis and creating disorders when a sheumatoid arthritis, osteoarthritis and creating disorders as the cartilage degradation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antisense oligonucleotide; phosphorothioate; TNFalpha; cytokine; inhibit; tumour necrosis factor alpha; inflammatory bowel disease; diabetes; rheumatoid arthritis; infectious disease; multiple sclerosis; hepatitis; panoreatitis; atopic dermatitis; allograft rejection; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                 Modulating growth or differentiation of cartilage cells useful for treating chondrosarcoma, osteochondroma and arthritis in mammals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.7%; Score 14.2; DB 1; Length 20; 34.2%; Pred. No. 3.5e+02; ve 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human TNFalpha antisense oligonucleotide ISIS# 104703.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 6 A; 3 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                    Example 6; Page 57; 90pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      771 CTGGAGAAGAAGTGTGAGC 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 CTGGAGAGAGCTATGAGC 19
                                                                             99WO-US011941.
                                                                                                                              98US-00087139.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAA41064 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 84.2*
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     inflammatory disease; ss
                                                                                                                                                                                                                                    Glimcher LH, Ranger AM;
                                                                                                                                                                                (HARD ) HARVARD COLLEGE
                                                                                                                                                                                                                                                                                     WPI; 2000-086734/07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200020645-A1.
                                                                             28-MAY-1999;
                                                                                                                              28-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-APR-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAA41064;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAA41064
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAX91991-X97517 represent PCR primers used to amplify open reading frames and other nucleic acid sequences from the genome of Chlamydia pneumoniae (See AAX91990). C. pneumoniae causes respiratory disease such as pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema nodosum or pharyngitis. The polypeptides encoded by the open reading frames of the C. pneumoniae genome (see AAY3484- AAY3879) can be used in immunogenic compositions as vaccines. Vectors containing C. pneumoniae especially where the vector directs the expression of a neutralising epitope of C. pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                         Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis; sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nuclear factor of activated T cells; NFATD; bone fracture; osteoporosis; calcineurin interaction region; cartilage cell differentiation; endochondral ossification; chondrosarcoma; rheumatoid arthritis; osteoarcoma; fibrous sarcoma; chondroma; enchondroma; PCR primer; beta-actin; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 1.7%; Score 14.2; DB 1; Length 20; Best Local Similarity 84.2%; Pred. No. 3.5e+02; Matches 16; Conservative 0; Mismatches 3; Indels
                                                                             PCR primer used to amplify an ORF of Chlamydia pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 4 A; 3 C; 7 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genome sequence of Chlamydia pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Page 1476; Disclosure; 1912pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   642 TCCCTGCAACCGAGTGTTC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20 TCCCTACAACTAGTC 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ56049 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-IB001890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97FR-00014673
98US-0107078P
                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-MAR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCR primer for beta-actin.
                                                                                                                                                                                                                                                             Chlamydophila pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1999-357842/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-NOV-1997;
04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9961908-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                    20-NOV-1998;
                                                                                                                                                                                                                                                                                                                 WO9927105-A2
                                                                                                                                                                                                                                                                                                                                                                   03-JUN-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Griffais R;
                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ56049;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus sp
```

RESULT 265

g

ö

Gaps

..

Page 212

Baker BF,

```
263 CAGGAGCACCTTCAGAAAG 281
                                                                                                                                                                                                                                                                                                                                                   activity of proteins involved in
heart failure or cardiomyopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 cadcadcarricacadad 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA78302 standard; DNA; 20 BP.
                                   (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99JP-00263984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98JP-00264598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 84.2%;
nes 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (SANY ) SANKYO CO LID.
                                                                                                               WPI; 2000-136984/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-454476/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JP2000154149-A.
                                                                          Khodadoust M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA78302;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA78302
ID AAA7
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This sequence represents an antisense of sequence without the tragets a region of the human timour necrosis factor alpha (TNFalpha) nucleotide sequence. TNFalpha is an important cytokine that plays a role in host defence. It is produced mainly in macrophages and monocytes in response to infection, invasion, injury or inflammation. Overexpression of TNFalpha can result in disease states, particularly in infectious, inflammatory and autoimmune diseases. The invention relates to antisense inflammatory and autoimmune diseases. The invention relates to antisense oligonucleotides, such as that represented by the present sequence which are capable of modulating the TNFalpha gene expression. The oligonucleotides optionally have a phosphorothioate backbone, and may also optionally contain at least one 2.0 methoxyethyl modification. The oligonucleotides are useful for modulating the expression of human TNFalpha in cells and tissues, reducing a human cell inflammatory construction associated with TNFalpha include diabetes, inflammatory bowel disease, multiple solerosis, pancreatitis, rheumatoid arthritis, disease, multiple solerosis, pancreatitis or allograft rejection. The antisense oligonucleotides are also useful for modulating the confittion of entail for modulating the confittion of sequence in adipose tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human myocardium protein-7; MP-7; congestive heart failure; lar disorder; cardiomyopathy; PCR mapping study; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                     This sequence represents an antisense oligonucleotide sequence which
                                                                                                                                                                                                            Oligonuclectide for treating diseases associated with human tumor necrosis factor-alpha (TMF-alpha) such as, diabetes and rheumatoid arthritis, comprises nucleotide sequence complementary to intron of nucleic acid encoding TMF-alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
1.7%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 3.5e+02;
Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Reverse primer for PCR mapping studies of human MP-7 gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 4 A; 6 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                      Shanahan WJ;
                                                                                                                                                                                                                                                                                                                Example 22; Page 101; 283pp; English
                                                                                                                                      Butler MM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      743 AGCCTTGGTCCTTAAGGAG 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 Agccrrrggcccrrrgaagag 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВР
                                     98US-00166186.
99US-00313932.
  99WO-US023205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ49574 standard; cDNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                 (ISIS-) ISIS PHARM INC
                                                                                                                                      Bennett CF,
                                                                                                                                                                           WPI; 2000-303808/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cardiovascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9967387-A2.
  05-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                         18-MAY-1999;
                                       05-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   primer;
```

98US-0090579P.

25-JUN-1998;

24-JUN-1999;

39-DEC-1999

AAZ49574;

RESULT 267

à

```
The present sequence is the reverse PCR primer designed from 3'UTR sequence of myocardium protein-7 (MP-7). This was used in PCR mapping studies to determine the chromosomal localisation of MP-7 gene. Specific amplification was carried on human and hamster cell line DNA. MP-7 is used to modulate a variety of cellular processes e.g. modulating the activity of proteins involved in cardiovascular disorders like congestive
Novel myocardium protein-7 polynucleotides, used to modulate a variety of cellular processes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to antirheumatic agents which comprise as active ingredients an immunoglobulin M (IgM) protein. The IgM protein does not include a J segment, has apoptosis inducing activity, and consists of a light and heavy chain polypeptide produced synthetically. The agents of the invention exhibit antirheumatic and immunosuppressive activity and can be used to treat autoimmune diseases, especially rheumatism. The IgM molecule used in the invention has human Fas-antigen binding properties. Included in the invention are nucleotide sequences of the IgM light and heavy chains (see AAA78267-A78272) and the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Anti-human Fas humanizing antibody-containing antirheumatic agents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antirheumatic agent; immunoglobulin M; IgM; apoptosis inducer; immunosuppression; autoimmune disease; treatment; rheumatism; anti-Fas antibody; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 6 A; 8 C; 4 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human Ig H chain sequencing primer SHHR-12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 4; Page 21; 109pp; Japanese.
                                                                                                                                                   Example 2; Page 94; 116pp; English.
```

ö

```
moclectide sequences of the humanised anti-human Fas IG CHII (see AAAA8202-A78206) and protein sequences (see AABI2908-B12910). Also included are anti-human Fas antibody CDR peptides (AABI2902-B12907). Primers specific for the anti-human Fas antibody, light, heavy and kappa chains used in the invention are represented by sequences AAA78213-A7826. Primers used for sequencing the human Ig DNA used in the invention are represented by sequences AAA78213-Farmers used for sequences AAA7827-A78318 and AAA78335. While humanised anti-Fas Ig DNA sequencing primers are represented by sequences AAA7827-A78318 and AAA78357. Finer sequences AAA78207-A78212 are specific for murine Ig DNA, and are used in the production of the agent of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention describes an antisense compound (I), 8 to 30 nucleobases in length, that is targeted to a nucleic acid molecule encoding STAT3 (Signal Transducer and Activator of Transcription) and which inhibits the expression of it. (I) has antiinflammatory, antirheumatic, cytostatic and immunostimulatory activities. (I) is used for inhibiting the expression of STAT3 in cells or tissues, treating an animal having a disease or condition associated with STAT3 or a human having a disease or condition characterised by a reduction in apoptosis, and inducing apoptosis in a cell. Diseases or conditions that are treated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New antisense compound for inhibiting the expression of signal transducer and activator of transcription 3 (STAT3) in cells or tissues and treating diseases or condition associated with STAT3, such as rheumatoid arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modulation; signal transducer and activator of transcription;
DNA-binding protein; signal transduction; inhibition; apoptosis;
inflammatory disease; cancer; antiinflammatory; antirheumatic;
cytostatic; immunostimulatory; rheumatioid arthritis; leukaemia; myeloma;
melanoma; lymphoma; diagnosis; ss.
   corresponding protein sequences (see AAB12913-B12918 and AAB12919), and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human STAT3 phosphorothioate antisense oligonucleotide SEQ ID NO:26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; mouse; STAT3; phosphorothioate; antisense oligonucleotide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7%; Score 14.2; DB 1; Length 20; 34.2%; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 6 A; 5 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 2; Page 46; 104pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     445 AGCCAGATGCCTTCCAGGA 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arccadaadccrrdcadda 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-APR-2000; 2000WO-US009054.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-00288461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAC93175 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-619223/59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200061602-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-OCT-2000,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Karras JG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAC93175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACG33175
AACG33
```

```
ö
         and/or neck, leukaemia, myelone, melanoma or lymphoma. (I) can also be used for diagnostic methods in detecting and determining the role of STAT3 in various call functions, physiological processes and conditions and for diagnostic methods in detecting and determining the role of STAT3 in various call functions associated with expression of STAT3.

(I) can be used alone or with other drugs as an immunostimulator. (I) is used in sandwich and colourimetric assays, involving enzyme conjugation and radiolabeling and is used in diagnostic kits. AAC93150 encodes human the present invention. AAC93151 to AAC93230 and AAC93232 to AAC93239 represent invention. AAC93151 to AAC93230 and AAC93230 represents a mismatch control oligonucleotide which are used in example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, glycogen synthase kinase 3 alpha, antidiabetic, cytostatic, antisense therapy, diabetes; hyperproliferative disorder; inflammation, neurological disorder; tumour; haematopoietic disorder; infection; hyperproliferative disorder; developmental disorder; antisense; phosphorothioate backbone; ss.
prostate, brain, head
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human glycogen synthase kinase 3 alpha antisense oligo ISIS #116632
                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                  1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; Live 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note = "Phosphorothioate backbone"
                                                                                                                                                                                                         Sequence 20 BP; 4 A; 5 C; 3 G; 8 T; 0 U; 0 Other;
 are rheumatoid arthritis, cancer of the breast,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note= "Methoxyethyl residues"
18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note = "Methoxyethyl residues"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                             876 TCCATTGAGGTCCTGCATG 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         base= OTHER
                                                                                                                                                                                                                                                                                                                         2 recarreagarerrecare 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mod_base= m5c
16. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 'mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                   AAD14791 standard; DNA; 20 BP
                                                                                                                                                                              from the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tag= b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               *tag= h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= c
                                                                                                                                                                                                                     Ouery Match
Best Local Similarity 84.2
Best Local Similarity 64.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..20
*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pou/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAD14791;
                                                                                                                                                                                                                                                                                                                                                                       RESULT 270
 ઠે
```

```
98US-00048810.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                              Query Match
Best Local Similarity 84.2
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     *tag=
        Miraglia LJ, Nero P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mod/
                            WPI; 2001-190948/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nodified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US6238921-B1
                                                                                                                                                                                                                                                                                                                                                                       10-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-MAY-2001
                                                                                                                                                                                                                                                                                                                                                    AAD07541;
                                                                                                                                                                                                                                                                                                           RESULT 272
AAD07541/c
g
                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                                                                                                                                          The invention relates to an antisense compound 8 to 30 nucleobases in length targetted to a nucleic acid encoding glycogen synthase kinase 3 alpha. The antisense compound specifically hybridises with and inhibits the expression of glycogen synthase kinase 3 alpha. The antisense compound is useful for the treatment of a diseases associated with glycogen synthase kinase 3 alpha such as diabetes, a neurological disorder, a haematopoietic disorder, a hyperproliferative disorder or a developmental disorder. The antisense compounds may also be used prophylactically to prevent or delay infection, inflammation or tumour formation. The present sequence is a phosphorothioate antisense oligonucleotide targetted to human glycogen synthase kinase 3 alpha DNA
                                                                                                                                                                                                    Antisense compound 8 to 30 nucleobases in length comprising a compound that is targeted to a nucleic acid molecule encoding glycogen synthase kinase 3 alpha, useful for the treatment of e.g. diabetes and hyperproliferative disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
1.7%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 3.5e+02;
Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Antisense; mdm2; hyperproliferation; cancer; psoriasis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 3 A; 7 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human mdm2 phosphorothioate oligonucleotide #10.
                                                                                                                                                                Wyatt JR;
                                                                                                                                                                                                                                                          Example 15; Page 83; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   204 CIGGGIICCCAGCCCICIC 222
                                                                                                                                                                 Butler MM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      creeerrcccaeacarcec 20
 /*tag= i
/mod_base= m5c
                             /*tag= j
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAF80636 standard; DNA; 20 BP.
                                                                                                    .6-JAN-2001; 2001WO-US001411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-00280805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-00048810
                                                                                                                         21-JAN-2000; 2000US-00488856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ISIS-) ISIS PHARM INC
                                                                                                                                             (ISIS-) ISIS PHARM INC
                                                                                                                                                                 Mckay R,
                                                                                                                                                                                     WPI; 2001-442247/47.
                     modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US6184212-B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36-FEB-2001
                                                                                26-JUL-2001
                                                                                                                                                                 Monia BP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAF80636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 271
AAF80636/c
 ð
```

```
ô
                                                                                                                                                                                                                                                       The present invention relates to an antisense compound 8-30 nucleobases in length targeted to nucleobases 1-308 of the 5' untranslated region, 1776-1806 of the translation termination codon region or 1818-2370 of the 3' untranslated region of a nucleic acid molecule encoding human mdm-2. The invention is useful for reducing hyperproliferation of human cells, modulating the expression of mdm2 in human cells or tissues or in vitro.
                                                                                                    Novel antisense compound 8-30 nucleobases in length targeted to a nucleic acid molecule encoding human mdm-2 useful for modulating the expression of human mdm-2 and reducing hyperproliferation of human cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cell proliferation; therapeutic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                         The hyperproliferative disorder includes cancer or psoriasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02;
Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
Cowsert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human mdm2 antisense oligonucleotide (ISIS #16515).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .20
And base= OTHER
Anotes= "Phosphorothioate backbone"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mod_base= OTHER
/note= "2'-methoxyethoxy residues"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       not\bar{e}= "2'-methoxyethoxy residues"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 5 A; 6 C; 3 G; 6 T; 0 U; 0 Other;
Monia BP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; mdm2 inhibitor; gene therapy;
tumour; prophylaxis; antisense; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
  Graham MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  *tag= e
mod base= OTHER
                                                                                                                                                                                                             Example 2; Col 20; 77pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       465 GAGCTCCAGGAACTTGGCA 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag= d
/mod_base= m5c
15. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= f
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAD07541 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
```

```
Example 1; Page 53; 67pp; Japanese.
                                                                                                                                                                                                                                                                                                                             1251/c
AAS29251 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Miraglia LJ, Nero P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MIRAGLIA L J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GRAHAM M J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MONIA B P.
COWSERT L M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-535565/59.
                                                                                                                                                                                                                  Local Similarity
wes 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JS2001016575-A1.
                                                                                                                                                   The present se
the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NERO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAR-1998;
26-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                     21-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                              AAS29251;
                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MONI/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (NERO/)
(GRAH/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MIRA/)
                                                                                                                                                                                                                                                                                                                 RESULT 274
                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                             AAS29251,
                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                   The present invention relates to compositions and methods for modulating the expression of human mdm2 gene, a naturally present cellular gene implicated in abnormal cell proliferation and tumour formation. The invention also provides antisense oligomucleotides which are targetted to the mdm2 gene and are capable of inhibiting the expression of mdm2 gene. The oligomucleotides are useful in diagnostics, therapeutics, prophylaxis and as research reagents. They are especially useful for inhibiting, diagnosing and treating abnormal proliferative conditions associated with mdm2. The method is useful for detecting and determining the role of mdm2 expression in various cell functions and physiological processes and conditions, and for diagnosing conditions associated with mdm2 conditions, mnd for diagnosing conditions associated with mdm2 conditions. The present sequence is human mdm2 antisense oligonucleotide (ISIS #1651s) with a phosphorothicate backbone. This sequence is
                                                                                                    New oligonucleotides 16506, 16507, 16518, 16520, 16521, 16522 and 16524, which inhibits human mdm2 expression, useful for inhibiting, diagnosing or treating abnormal proliferative conditions associated with mdm2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Amplifying nucleic acids with base sequences of mRNAs in sample while sustaining the ratio among them used to monitor mRNA expression, applicable in producing e.g. cRNA library and DNA microarrays.
                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                ٥;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 primer; ss.
                                                                                                                                                                                                                                                                                                                                                                        Score 14.2; DB 1; Length 20; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kato
                                                                                                                                                                                                                                                                                                                                                                                              3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Asada K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acid amplification; adapter DNA; human; PCR
                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 5 A; 6 C; 3 G; 6 T; 0 U; 0 Other;
                                                        Graham MJ, Monia BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mineno J,
                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human E2F-2 gene PCR primer SEQ ID NO: 18.
                                                                                                                                                  Example 2; Col 16; 19pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Terada M,
                                                                                                                                                                                                                                                                                                                                                                                                                      465 GAGCTCCAGGAACTTGGCA 483
                                                                                                                                                                                                                                                                                                                                                                                                                                           GATCTACAGGAACTTGGTA 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAH45766 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-NOV-2000; 2000WO-JP008073.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-JUL-2000; 2000JP-00224663.
                                                                                                                                                                                                                                                                                                                                                                         1.7%;
           98US-00048810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAKI ) TAKARA SHUZO CO LID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                16; Conservative
                                                        Miraglia LJ, Nero P,
                                (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sasaki H,
                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                              WPI; 2001-366477/38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-355947/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200138572-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-NOV-1999;
            26-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Aoyagi K,
                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAH45766;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
8
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       An antisense compound, useful for treating e.g. cancer, comprises nucleobases targeted a region (e.g. translation termination codon region) of a nucleic acid encoding human mdm2.
The present invention describes a method of amplifying nucleic acids, principly forming a single-stranded DNA to an mRNA in a sample with a primer, synthesising a DNA strand complementary to the single-stranded DNA to form a double-stranded DNA, adding a single or double-stranded adapter DNA to the double-stranded DNA, and amplifying the DNA strand using a second primer with a nucleic acid sequence in the adapter DNA this can be used to amplify nucleic acids to monitor mRNA expression, which is applicable in producing e.g. cRNA libraries, cDNA libraries, DNA microarrasys or membrane arrays in gene engineering and gene expression analysis, and in drug development and health maintenance and management.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .20
/*rag= a
/mod_base= OTHER
dot-e= "OTHER= All phosphorothioate linkages, dotte= "OTHER= All phosphorothioate linkages, additionally bases 1-6 and bases 15-20 are 2'-O-methoxyethyl bases, and bases 7-14 are deoxynucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human, mdm2, hyperproliferative disorder; cancer; psoriasis;
atherosclerosis; tumour; cytostatic; anti psoriatic;
anti arteriosclerotic; vasotropic; antisense; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seguence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Graham MJ, Monia BP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human mdm2 antisense oligonucleotide 16515.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      607 TGGACGTGGCCATCTCAAC 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 recacricaccaccricace 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JAN-2001; 2001US-00752983.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-00048810.
99US-00280805.
```

ö

Gaps

.; 0

```
Example 1; Page 7; 45pp; Japanese.
                                                                                                                        465 GAGCTCCAGGAACTTGGCA 483
                                                                                                                                20 GATCTACAGGAACTTGGTA 2
                                                                                                                                                     AAH42050 standard; DNA; 20 BP
                                                                                                                                                                                                                                   99JP-00278661
                                                                                                           Best Local Similarity 84.2
Matches 16, Conservative
                                                                                                                                                                                                                                                    WPI; 2001-341249/36.
                                                                                                                                                                                                   Mastadenovirus
                                                                                                                                                                                                          JP2001095583-A.
                                                                                                                                                                                          PCR primer; ss
                                                                                                                                                                                                                                            (ITON/) ITO N.
                                                                                                                                                                                                                                   30-SEP-1999;
                                                                                                                                                                                                                           30-SEP-1999;
                                                                                                                                                                                                                   10-APR-2001
                                                                                                       Query Match
                                                                                                                                                             AAH42050
                                                                                                                                                AAH42050,
                                                                                                                                             RESULT
ò
                                                                                                                                6
```

```
Human, epidermal growth factor receptor; hyperproliferative disease;
Herl; antisense; prophylaxis; psoriasis; phosphorothicate backbone;
tumour; cancer; ss.
                                       Query Match
1.7%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 3.5e+02;
Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .5
^*tag= b
mod base= OTHER
/note= "2'methoxyethyl nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note= "2'methoxyethyl nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                   Human Her-1 antisense oligonucleotide ISIS #128515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .20
^trag = a
mod base= OTHER
/note= "Phosphorothicate backbone"
G; S T; O U; O Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wyatt JR, Freier SM;
                                                                                                                              470 CCAGGAACTTGGCATTCCT 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag= h
/mod_base= m5c
16. .20
                                                                                                                                                                      20 ccaddarrrdacarccr 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            *tag= g
mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      *tag= d
mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  *tag= e
mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                *tag= f
mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag= i
/mod_base= m5c
                                                                                                                                                                                                                                                                           AAD36641 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-SEP-2001; 2001WO-US030551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-SEP-2000; 2000US-00676610
    Sequence 20 BP; 6 A; 3 C; 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        *tag= c
mod base=
                                                                                                                                                                                                                                                                                                                                                             09-AUG-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-394234/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200226758-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sennett CF,
                                                                                                                                                                                                                                                                                                                     AAD36641;
                                                                                                                                                                                                                                    RESULT 276
                                                                                                                                                                                                                                                            AAD36641/
                                                                                                                                ઠે
                                                                                                                                                                                                                                                                              Integrated to the 5' untranslated region, translation termination codon region, 3' untranslated region, translation termination codon region, 3' untranslated region, coding region or translation start site of a nucleic acid encoding human mdm2. Where the antisense compound modulates the expression of human mdm2. The antisense oligonucleotides of the invention are useful for encoding human mdm2 and for inhibiting the expression of human mdm2. The matisense of inhibiting the actient of human mdm2. They may be used for treating an animal having a cheexpression of human mdm2. They may be used for treating an animal having a coverexpression of mdm2 e.g. a hyperproliferative disorder such as cancer (blood, brain, breast, lung, or a soft tissue cancer) and psoriasis, inhorsis, atherosclerosis or restencist, tumours, colorectal carcinoma and chronic myelogenous leukemia. The antisense compound may be administered with a chemotherapeutic agent to overcome drug resistance.

The antisense compound reduces hyperproliferation of human cells. The method, which involves the use of the antisense compound, is also useful for a detecting the role of mdm2 expression in various cell functions and channel tools. AAS29247-AAS28507 represent the human mdm2 antisense oligonucleotides of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes an adenovirus which is separated from the conjunctiva of a follicular conjunctivitis patient and neutralised weakly by an antiserum against the type 8 or type 9 prototype of adenovirus but is not neutralized by the types 1-7 prototype or the type 10, 11, 14, 19, 22, 34, 35, 37, 40 or 41 prototype. The adenovirus causes congestion in the conjunctiva and follicular conjunctivitis, and the method of the invention is used for their prevention
                                                                    The present invention relates to antisense compounds, 8-30 nucleobases in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Follicular conjunctivitis; antiserum; antiviral; vaccine; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New adenovirus for the prevention and treatment of Ad infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Follicular conjunctivitis related adenoviral DNA PCR primer #11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 5 A; 6 C; 3 G; 6 T; 0 U; 0 Other;
                              Example 2; Page 11; 81pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99JP-00278661
```

Novel antisense oligonucleotide that specifically hybridizes with and inhibits nucleic acid encoding epidermal growth factor receptor, useful for treating hyperproliferative disease such as cancer or psoriasis.

Claim 1; Page 47; 169pp; English.

XEFFXXXXCCCCCCCXXXXXCCCCCCXXXXXCCCCCCCCXXXX

The invention relates to an antisense oligonucleotide targetted to a nucleic acid molecule encoding human epidermal growth factor receptor (Herl) to inhibit its expression. The antisense compounds are useful for treating diseases or conditions associated with Her-1 such as hyperproliferative diseases especially cancer (lung, ovarian, colon or prostrate cancer) and psoriasis. They are also useful as research reagents, diagnostics, therapeutics, kits and prophylactically e.g. to prevent or delay tumour formation. The present sequence is an antisense oligonucleotide targetted to human Her-1

Sequence 20 BP; 3 A; 6 C; 5 G; 6 T; 0 U; 0 Other;

.; 0 1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; tive 0; Mismatches 3; Indels Local Similarity 84.2 les 16, Conservative Query Match

679 CAGATGGATCTGCACACCG 697

ò

CAGATGAGAACCCCG 2

RESULT 277

BP. AAS96792 standard; DNA; 20

AAS96792;

26-FEB-2002 (first entry)

Human STAT3 antisense phosphorothioate oligodeoxynucleotide #25.

STAT3; human, signal transducer and activator of transcription; ss; STAT; antisense gene therapy; Fas-mediated apoptosis; inflammatory disease; autoimmune disease; rheumatoid arthritis; cancer; breast; prostate; head; neck; brain; leukaemia; myeloma; melanoma; lymphoma; apoptosis; antiinflammatory; immunosuppressive; antirheumatic; antiarthritic; cytostatic.

sapiens. Ношо

Synthetic.

US2001029250-A1.

11-OCT-2001

11-JAN-2001; 2001US-00758881

99US-00288461 06-APR-2000, 2000WO-US009054 08-APR-1999;

(KARR/) KARRAS J G.

WPI; 2002-009991/01

Novel antisense compound useful for treating and diagnosing inflammatory diseases and cancers, is targeted to a nucleic acid molecule encoding signal transducer and activator of transcription proteins

Example 2; Page 13; 21pp; English.

molecule encoding a signal transducer and activator of transcription (STAT) protein, specifically STAT3, where the antisense compounds inhibit the expression of STAT3. The antisense sequences are useful for The invention relates to antisense compounds targeted to a nucleic acid

inhibiting the expression of STAT3 in cells or tissues, inducing Fasmediated apoptosis in cells, and sensitiaing cells to apoptosis. They are also useful for treating an animal having a disease or condition associated with STAT3. These disorders include inflammatory or autoimmune disease, particularly rheumatoid arthritis, cancers, such as those of the breast, prostate, brain and head and neck and leukaemias, myelomas, melanomas and lymphomas. Also treatable are human diseases or conditions dharacterised by a reduction in apoptosis or an insensitivity to apoptotic signals. The sequences of the invention can be used in clinical research, for detecting and determining the role of STAT3 in various cell functions and physiological processes and for diagnosing conditions associated with the expression of STAT3. The sequences represent cDNA encoding human STAT3 and human STAT3 oligonucleotides

\$

Sequence 20 BP; 4 A; 5 C; 3 G; 8 T; 0 U; 0 Other;

, , 1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; tive 0; Mismatches 3; Indels Local Similarity 84.2 nes 16; Conservative Query Match

ô

ઠ

RESULT 278 AAS97928

BP. AAS97928 standard; DNA; 20

AAS97928;

12-MAR-2002 (first entry)

Human, mouse, SAC1, carbohydrate, sweetener, ethanol, alcoholism, ss; obesity; diabetes, transgenic embryo; body tissue, body fluid, pancreas; blood, tongue, PCR primer, anorectic, antidiabetic, gene therapy; Murine SAC1 gene-specific oligonucleotide PCR primer #481.

protein replacement therapy.

WO200183749-A2.

08-NOV-2001.

25-APR-2001; 2001WO-US013387.

28-APR-2000; 2000US-0200794P. 28-JUL-2000; 2000US-0221419P. 10-NOV-2000; 2000US-0247443P.

(WARN) WARNER LAMBERT CO. (MONE-) MONELL CHEM SENSES CENT.

× 금 Š De Jong PJ, Li AA, Beauchamp GK, Chatterjee A, Reed DR, Ross D, Tordoff MG; Bachmanov AA, Ohmen JD, Re

WPI; 2002-075162/10.

Novel isolated polypeptide comprising variant form of mouse or human SAC1 polypeptide, and is associated with altered preference for carbohydrates or other sweeteners, useful for preventing obesity, diabetes, alcoholism.

Claim 14; Page 93; 239pp; English.

The invention relates to an isolated polypeptide, comprising a variant form of mouse or human \$AC1 polypeptide. The variant form is associated with altered preference for carbohydrates, other sweeteners or ethanol. The polypeptide and its associated DNA sequence can be produced by recombinant techniques and is useful for preventing obesity, diabetes or alcoholism associated with \$AC1 expression. The sequences are useful in screening for drugs and sweeteners. Recombinant cell lines and transgenic

,

```
888888
                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to an isolated polynucleotide (other than a naturally occurring chromosome) comprising a sequence encoding a pancreatic progenitor 1 (PPI) protein. The invention also discloses an tibodies raised against the protein. The invention also discloses the polynucleotide and a non-human transgenic animal expressing PPI. The polynucleotide is useful for screening for modulators of PPI. The polynucleotide is useful for screening for modulators of PPI. The polynucleotide is useful for denetherapy, mapping function of its encoded protein, PPI for gene therapy, mapping functional regions of the protein, protein, PPI for gene therapy, mapping functional regions of the protein, transformed with the expression cassette is useful in transplantation to provide a recipient with pancreatic islet cells, including insulin producing beta cells, for drug screening, experimental models of islet differentiation and interaction with other cell types, in vitro screening assays to define growth and differentiation factors, and to additionally characterise genes involved in islet development and regulation. The polynucleotide and PPI protein are useful for analyzing a patient sample
                                                                                                                                                                                                                                                                                                          ;
0
embryos may be used in screening for and identifying agents that induce or repress function of SAC1. Predisposition to diabetes, obesity or alcoholism can be ascertained by testing any fluid or tissue of a human (such as blood, pancrees or tongue) for sequence variations of the SAC1 sequence variations of the SAC1 polens may indicate a predisposition to diabetes, obesity and/or alcoholism and may provide a diagnostic mark. The polynucleotide can be detected in a biological sample by contacting the DNA with a probe to form a hybridisation complex which is then detected. The sequences represent cDNA encoding human and mouse SAC1 polypeptides and PCR primers specific for the SCA1 genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pancreatic progenitor 1, PP1, ss; transgenic animal, gene therapy; diabetes; islet cell; PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New pancreatic progenitor 1 gene and polypeptide, useful for treating disorders associated with the protein defects.
                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                               Score 14.2; DB 1; Length 20;
Pred. No. 3.5e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mouse pancreatic progenitor 1, PP1, PCR primer #1.
                                                                                                                                                                                                                             Seguence 20 BP; 5 A; 3 C; 8 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1; Page 20; 37pp; English
                                                                                                                                                                                                                                                                                                                                                   716 CAAATTTCAGGAGCTGCGG 734
                                                                                                                                                                                                                                                                                                                                                                                            CAAGTTTCAGGAGCTAGGG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS15230 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-APR-2000; 2000US-0199752P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-APR-2001; 2001WO-US013713
                                                                                                                                                                                                                                                                    . 1.7%;
ilarity 84.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-FEB-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (SCRI ) SCRIPPS RES INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sarvetnick N, Fox H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-026154/03.
                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200181403-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAS15230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mouse; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 27
AAS15230
      888888888888888
                                                                                                                                                                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
```

```
ö
for the expression of PP1, or their variants. PP1 genes, gene fragments, its encoded proteins or protein fragments are useful in gene therapy to treat disorders associated with PP1 defects e.g. type I diabetes. The present sequence is a PCR primer used to isolate a nucleic acid molecule encoding PP1
                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                       Human PLA2, group VI (Ca2+-independent) antisense oligo ISIS #129863
                                                                                                                                                                                                                                                                                                           Human, antisense; phospholipase A2; infection; inflammation; tumour; antisense therapy; PLA2; phosphorothioate backbone; ss.
                                                                                                                         ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                          "mod_base= OTHER
note= "2'-methoxyethyl (2'-MOE) nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 note= "2'-methoxyethyl (2'-MOE) nucleotides"
                                                                                              Score 14.2; DB 1; Length 20;
Pred. No. 3.5e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                            'note = "Phosphorothioate backbone"
                                                                            Sequence 20 BP; 4 A; 7 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                             354 GCCAACCTGTCAGAAGAGC 372
                                                                                                                                                                                                                                                                                                                                                                                                        /*tag= a
/mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= g
/mod_base= m5c
16. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER
                                                                                                                                                                  GCCGTCCTTCAGAGAGC 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2. .3
/*tag= d
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mod_base= m5c
1. .12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         '*tag= h
mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mod base= m5c
                                                                                                                                                                                                                          AAD42961 standard; DNA; 20 BP
                                                                                                 1.7%;
84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-MAY-2001; 2001US-00851896.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-MAY-2001; 2001US-00851896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag= c
^d base= r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               *tag= c
mod base=
                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ω
                                                                                                   Query Match 1.7
Best Local Similarity 84.2
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          *tag=
                                                                                                                                                                                                                                                                                                                                                                                  Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nodified base
                                                                                                                                                                                                                                                                                                                                                                                                                                        modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nodified base
                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US6410325-B1
                                                                                                                                                                                                                                                                    15-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-JUN-2002,
                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                AAD42961;
                                                                                                                                                                                                      RESULT 280
                                                                                                                                                                                                                AAD42961
ID AAD
                                                                                                                                                                   g
```

```
The present invention relates to novel antisense compounds which inhibit the expression of phospholipase A2 (PLAZ), group VI (G24-independent). The invention is useful for inhibiting the expression of PLAZ, group VI (G24-independent) in human cells or tissues and for treating an animal, particularly a human suspected of having or being prone to a disease or condition associated with expression of human PLAZ, group VI (G22-independent). It is useful for diagnostics, therapeutics and as research formation or inflammation. The present or delay infection, tumour formation or inflammation. The present DNA sequence is an antisense oligonucleotide targetted to human PLAZ, group VI (G22+-independent) DNA
                                                                                                                       Novel antisense compounds useful for inhibiting gene expression of human phospholipase A2, group VI and for treating diseases associated with expression of phospholipase A2, group VI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; signal transducer and activator of transcription 3; ischaemia; immune response; Stat3; coronary atherosclerosis; vascular occlusion; hypoziais stroke; anglogenesis; myocardial infarction; hypozipycaemia; inflammation; chronic obstructive pulmonary disease; cardiac arrest; insulin dependent diabetes mellitus; emphysema; trauma; scleroderma; shock; chronic active hepatitis; adult respiratory distress syndrome; nitrogen necrosis; proliferative angiopathy; autoimmune thyroiditis; sjogren's syndrome; multiple sclerosis; Addison's disease; epilepsy; polymyositis; rheumatoid arthritis; autoimmune infertility; anaemia; proliferative disease; derawe, disease; ulcerative colitis; sarcoma; carcinoma; degenerative disorder; gene therapy; growth deficiency; cirrhosis; hypoproliferative disorder; lesion; antisense; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ouery Match 1.7%; Score 14.2; DB 1; Length 20; Best Local Similarity 84.2%; Pred. No. 3.5e+02; Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 5 A; 9 C; 3 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human Stat3 antisense oligonucleotide #7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yu H, Pardoll D, Jove R, Dalton W;
                                          Watt AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           404 CCTGCTCCAGCAGGCTCTC 422
|| || || || || || || || || 2 CCAGCTCCAGGATCTC 20
                                                                                                                                                                                                         Claim 1; Col 45; 72pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ВЪ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-SEP-2001; 2001WO-US028254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-SEP-2000; 2000US-0231212P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYSF-) UNIV JOHNS HOPKINS. (UYSF-) UNIV SOUTH FLORIDA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAD35073 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-JUL-2002 (first entry)
                                          Bennett CF, Freier SM,
(ISIS-) ISIS PHARM INC
                                                                                  WPI; 2002-616513/66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-362218/39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200220032-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD35073;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAD3507
```

```
The invention relates to a method of modulating angiogenesis and immune response. Method involves administering to an individual a compound that modulate the activity of signal transducer and activator of transcription 3 (Stat3). Modulating angiogenesis is useful for treating or preventing hypoxic or ischaemic condition or disorder which is the result of stroke, ischaemia, coronary atherosclerosis, myocardial infaramation, tissue ischaemia in the lower extremities, infarction, inflammation, tissue ischaemia in the lower extremities, infarction, inflammation, tissue ischaemia in the lower extremities, infarction, suffocation, shock, chronic obstructive pulmonary disease, choking, asphyxia, hypoglycaemia, childpsy, emphysema, adult respiratory distress syndrome, cardiac arrest, introgen necrosis, proliferative andiopathy e.g. diabetic microangiopathy with neovascularisation. Suppressing an immune response is useful for ameliorating a symptom of an autoimmune disease such as systemic lupus erythematosus, multiple sclerosis, insulin dependent diabetes mellitus, sjogren's syndrome, sclerosis, primary bilary cirrhosis, pernicious anaemia, autoimmune thyroiditis, idiopathic Addison's disease, vitiligo, gluten-sensitive enteropathy, autoimmune neutropenia, myasthenia gravis, cidiopathic thrombocyropenia purpura, Grave's disease, goodgesture's some infertility, bullous pemphigoid, discoid lupus, ulcerative colitis and carcinomas e.g., bladder carcinoma, colon carcinoma, chronic leukaemia, chense deposit disease. The method is useful in preventing or treating carcinomas e.g., bladder carcinoma, colon carcinoma, chronic leukaemia, chronic eleukaemia, leukappicus and soused in gene therapy. The present sequence is human Stat3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                              Modulating angiogenesis and an immune response in an individual, for treating a hypoxic or ischemic condition, comprises administering a compound that modulates the activity of a signal transducer and activator of transcription 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cytostatic, cancer; Slug gene; mesenchymal cancer cell; leukaemia; sarcoma; antitumour agent; antisense therapy; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 1.7%; Score 14.2; DB 1; Length 20; Best Local Similarity 84.2%; Pred. No. 3.5e+02; Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 4 A; 5 C; 3 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (UYSA-) UNIV SALAMANCA OTRI.
(CNSJ ) CONSEJO SUPERIOR INVESTIGACIONES CIENTIF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oligonucleotide initiator SEQ ID No 7.
                                                                                                                                                                                                                                              Disclosure; Page 32; 94pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          876 TCCATTGAGGTCCTGCATG 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 TCCATTCAGATCTTGCATG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             518/c
AAL41518 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JAN-2001; 2001ES-00000151.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-JAN-2002; 2002WO-ES000026.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200259361-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-AUG-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAL41518/
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    THE STATE OF THE S
```

schu568-1.rng

```
vertebrate sample. The method comprises determining aberrant expression of the Slug gene, relative to a normal control sample. The method is used to detect (for diagnosis, monitoring progression and detection of residual disease after treatment) mesenchymal cancer cells (leukaemia or sarcoma) in humans. Agents that inhibit Slug (at DNA, RNA or protein levels) are potential antitumnour agents. The polymuclecides of the invention can be used in antisense therapy. This polymuclecide sequence represents an oligonucleotide relating to the Slug gene of the invention
                                                                                                                 comprises
                                                                                                               Detecting cancerous cells, useful for diagnosis and prognosis, comprimeasuring abnormally high expression of the Slug gene or its protein.
                                                                                                                                                                                                                                     The invention relates to a method for detecting cancerous cells in a
                         Perez Losada J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20 BP; 9 A; 7 C; 2 G; 2 T; 0 U; 0 Other;
                         Orfao De Matos A,
                                                                                                                                                                                          Disclosure; Page 55; 61pp; Spanish.
                                                                 WPI; 2002-691533/74.
                         Sanchez Garcia I,
```

. 0 1.7%; Score 14.2; DB 1; Length 20; 34.2%; Pred. No. 3.5e+02; ve 0; Mismatches 3; Indels 513 AGTITGGCATTTGGGAGTC 531 19 AGTTTGGCTTTTTGGAGGC 1 84.28; Query Match
Best Local Similarity 84.2
Matches 16; Conservative à

ô

Gaps

ABZ91426 standard; DNA; 20 BP 17-0CT-2003 ABZ91426; ABZ91426 CX X S X X B X B X

Human oligonucleotide sequence. (first entry)

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory; antiallergic, antinflammatory; antiallergic, antiaflammatory; antiallergic, antiaflammatory; encorative, immunosuppressive; cytostatic; gene therapy, antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; inflammation; respiratory disease; ds. lung

Homo sapiens.

WO200285308-A2

31-OCT-2002

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P

(EPIG-) EPIGENESIS PHARM INC

Aguilar D; Pabalan J, Katz E, Sandrasagra A, Ka L, Shahabuddin S; Li Y, Sar Tang L, Nyce JW, I Miller S,

WPI; 2003-229219/22.

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or

The invention relates to a novel pharmaceutical composition, which has a

Disclosure; SEQ ID NO 3415; 872pp; English.

ubiquinone

Disclosure; SEQ ID NO 6668; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has a

first active agent comprising an oligonucleotide antisense to the initation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antiallargic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a cuse in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antialfammatory steroid in a subject, for reducing or depleting levels of, or reducing sensitivity to adenosine, reducing levels of adenosine receptor, producing bronchocilation, increasing levels of ubiquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung allefamention, lung allefament is not respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO ö Human, antisense, lung dysfunction, nasal airway dysfunction; antinflammatory, antiallergic; antinflammatory, antiallergic; antiaflammatory, antiallergic; antiasthmatic; hypotensive, immunosuppressive, cytostatic; gene therapy, antisense gene therapy, regilatory, lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; Gaps ö Aguilar 1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; Indels Pabalan J, Sequence 20 BP; 2 A; 2 C; 12 G; 4 T; 0 U; 0 Other; at ftp.wipo.int/pub/published_pct_sequences 0; Mismatches lung inflammation; respiratory disease; ds. Sandrasagra A, Katz E, I, Shahabuddin S; 596 ccecrececegregacere 614 13 Human oligonucleotide sequence. ABZ88173 standard; DNA; 20 BP 23-APR-2002; 2002WO-US013135. 24-APR-2001; 2001US-0286137P. (EPIG-) EPIGENESIS PHARM INC (first entry) Best Local Similarity 84.2 Matches 16; Conservative WPI; 2003-229219/22. Li Y, Sar Tang L, WO200285308-A2. Homo sapiens. 17-0CT-2003 31-OCT-2002 Miller S, Query Match ABZ88173; Nyce JW, RESULT 284 ABZ88173, 8899999999999999999999999 à 쉱

```
first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory antiallergic, antiathmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing levels of adenosine receptor, producing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing bronchoconstriction, lung surfactant in a subject's tissue, or treating bronchoconstriction, lung surfactant in a subject's tissue, or areapiratory disease or condition.

Condition, broughlished for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO at fitp.wipo.int/pub/published_pot_sequences
```

Sequence 20 BP; 3 A; 9 C; 5 G; 3 T; 0 U; 0 Other;

```
.
Match 1.7%; Score 14.2; DB 1; Length 20; Local Similarity 84.2%; Pred. No. 3.5e+02; es 16; Conservative 0; Mismatches 3; Indels
                                                                       464 AGAGCTCCAGGAACTTGGC 482
                                                                                           19 AGAGCTGCCGGAGCTTGGC 1
   Query Match
                      Best Loca
Matches
                                                                                                        셤
```

ABZ91000 standard; DNA; 20 BP 17-OCT-2003 (first entry) ABZ91000; RESULT 285

Human oligonucleotide sequence.

Human; antisense; lung dysfunction; nasal airway dysfunction; antinflammatory steroid; ubiquinone; antinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

Homo sapiens

WO200285308-A2.

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC

Aguilar E, Pabalan J, Katz Li Y, Sandrasagra A, Ka, Tang L, Shahabuddin S; Nyce JW, I Miller S,

WPI; 2003-229219/22.

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone.

Disclosure; SEQ ID NO 6242; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has a

```
first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antiallergic, antisthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a second in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an infilammatory steroid in a subject, for reducing or depleting levels of of, or reducing sensitivity to adenosine, reducing sensitivity to adenosine, reducing sensitivity to adenosine, reducing bronchoconstriction, lung surfactant in a subject's tissue, or treating bronchoconstriction, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ftp.wipo.int/pub/published_pct_sequences
```

Sequence 20 BP; 7 A; 4 C; 7 G; 2 T; 0 U; 0 Other;

```
0
                                          Gaps
                                          .
0
Match 1.7%; Score 14.2; DB 1; Length 2 Local Similarity 84.2%; Pred. No. 3.5e+02; les 16; Conservative 0; Mismatches 3; Indels
                                                                               317 AGACTGCAGAGAAGCTGTG 335
        Query Match
                                                                                 à
```

RESULT 286 ABZ90811

2 AAAGCGCAGAGAAGCTGTG 20

g

ö

Gaps

ВР ABZ90811 standard; DNA; 20

ABZ90811;

(first entry) 17-OCT-2003 Human oligonucleotide sequence.

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid; ubiquinone, antiinflammatory, antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

Homo sapiens,

WO200285308-A2

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC

Pabalan J, Aguilar D; Katz E, Sandrasagra A, Ka i, Shahabuddin S; Li Y, San , Tang L, Miller S, Nyce JW,

WPI; 2003-229219/22.

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone

Disclosure, SEQ ID NO 6053; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has

```
first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 1' end genomic flanking regions, 5' or 1' end genomic flanking regions, 5' unctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention is matchinflammatory, antiallergic, antiathmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antifulammatory steroid in a subject, for reducing or depleting levels of of, or reducing sensitivity to adenosine, reducing or depleting levels of of, or reducing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing bronchoconstriction, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ftp.wipo.int/pub/published_pct_sequences
                                                   {\color{red} \circ} {\color{blue} \circ} {\color{bl
```

Sequence 20 BP; 5 A; 9 C; 3 G; 3 T; 0 U; 0 Other;

; 0 Gaps ; 0 1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; iive 0; Mismatches 3; Indels Best Local Similarity 84.2 Matches 16; Conservative Query Match 8

432 CCTGCTAGTCTAAAGCCAG 450 cerecrecrecaaaceae 20

ABZ91001 standard; DNA; 20 BP 17-OCT-2003 ABZ91001; RESULT 287 ABZ9100

(first entry)

Human oligonucleotide sequence.

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone, antinflammatory; antiallergic, antiasthmatic, hypotensive, immunosuppressive, cytostatic, gene therapy, antisense gene therapy, respiratory; lung, adenosine sensitivity; adenosine receptor, bronchodilation; bronchoconstriction; lung allergy, lung inflammation; respiratory disease; ds.

Homo sapiens.

WO200285308-A2.

31-OCT-2002

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC

Aguilar D; Pabalan J, Katz E, Sandrasagra A, Li Y, Sa Tang L, Nyce JW, Miller S,

WPI; 2003-229219/22.

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or

Disclosure; SEQ ID NO 6243; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has a

first active agent comprising an oligonuclectide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2.10 muclectides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory the outlialergic, antiaschmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a tree in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing or depleting levels of of or reducing sensitivity to adenosine, reducing levels of adenosine receptor, producing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing levels of unginione or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences

Sequence 20 BP; 6 A; 2 C; 9 G; 3 T; 0 U; 0 Other;

Gaps ; 0 1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; Indels Mismatches ., Conservative Local Similarity Les 16; Conserv Query Match Matches

ö

ð q RESULT 288 ABZ85305

ABZ85305 standard; DNA; 20 BP ABZ85305;

17-OCT-2003 (first entry)

Human oligonucleotide sequence.

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory; antiallergic; antianflammatory; antiallergic; antiasthmatic, hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy, respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

WO200285308-A2.

31-OCT-2002

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

ы Sandrasagra A, Katz , Shahabuddin S; (EPIG-) EPIGENESIS PHARM INC Li Y, Sa Tang L, Nyce JW,

Pabalan J,

WPI; 2003-229219/22.

Miller S,

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone.

Claim 15; SEQ ID NO 547; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has

first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 mucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubjudinone. A composition of the invention has antiinflammatory, antiallergic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing levels of, or reducing sensitivity to adenosine, reducing levels of, or reducing bronchoconstriction, lung surfactant in a subject, increasing levels of denosine or lung surfactant in a subject or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed at the wipo.int/pub/published_pot_sequences Gaps . 1.7%; Score 14.2; DB 1; Length 20; Local Similarity 84.2%; Pred. No. 3.5e+02; es 16; Conservative 0: Minnich Sequence 20 BP; 3 A; 1 C; 4 G; 12 T; 0 U; 0 Other; ABZ88125/C

ID ABZ88125/C

XX

AC

ABZ88125/C

XX

ABZ88125/C

XX

ABZ88125/C

XX

ABZ88125/S

DT

I7-OCT-2003 (first entry)

XX

Human, antisense; lung dysfunctive action antisthmatory steroid; ubiquivantisense gene therapy; respirate actions antisense gene therapy; respirate actions antisense gene therapy; respirate actions antisense gene therapy; respiratory dividence actions antisense gene therapy; respiratory dividence actions antisense gene therapy; respiratory dividence actions actions actions actions actions actions actions action act 925 GGACTTTCAGGTTTTGTTT 943 GTACTTTGAAGTTTTGTTT 20 Human oligonucleotide sequence. ~ Query Match Best Loca Matches

g ે

.. 0

Human; antisense; lung dysfunction; nasal airway dysfunction; antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic; antiinsthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodiation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

ű Aguilar Katz E, Pabalan J, Li Y, Sandrasagra A, Ka Tang L, Shahabuddin S;

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or

ø

The invention relates to a novel pharmaceutical composition, which has

Disclosure; SEQ ID NO 5796; 872pp; English.

ubiquinone.

Disclosure; SEQ ID NO 3367; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has a

```
first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention is matchinflammatory, antiallergic, antiathmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an infilammatory steroid in a subject, for reducing or depleting levels of of, or reducing sensitivity to adenosine, reducing or depleting levels of continuous surfactant in a subject, for reducing bronchodilation, increasing levels of ubiquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence date for this patent is not represented in the printed specification, but was obtained in electronic format directly from NIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human, antisense, lung dysfunction, nasal airway dysfunction, antiinflammatory steroid, ubiquinone, antiinflammatory; antiallergic, antiasthmatic; hypotensive; immunosuppressive; cytostatic, gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pabalan J, Aguilar
                                                                                                                                                                                                                                                                                                                                                                                                                                 Match 1.7%; Score 14.2; DB 1; Length 20; Local Similarity 84.2%; Pred. No. 3.5e+02; es 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                              Seguence 20 BP; 5 A; 3 C; 5 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                           ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Katz E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sandrasagra A, Ka
L, Shahabuddin S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               864 GATGAGCCCAACTCCATTG 882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19 GATGAAACCTACTCCATTG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human oligonucleotide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВБ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-APR-2001; 2001US-0286137P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23-APR-2002; 2002WO-US013135.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (EPIG-) EPIGENESIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABZ90554 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Li Y, San
Tang L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-229219/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200285308-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31-OCT-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Miller S,
                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Nyce JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
```

```
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antiallergic, antisthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antialnammatory steroid in a subject, for reducing levels of adenosine receptor, producing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing levels of adenosine lung surfactant in a subject's tissue, or treating bronchoconstriction, lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence date for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mod_base= OTHER
/note= "Phosphorothioate backbone, All cytidines are methylcytidines"
                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PLA2GS; hVPLA2; HPLA2-10; therapy; autoimmune disorder; prophylaxis; inflammatory disorder; antisense; phosphorothioate backbone; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; phospholipase A2; PLA2; calcium dependent phospholipase A2;
                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                           1.7%; Score 14.2; DB 1; Length 20;
34.2%; Pred. No. 3.5e+02;
ve 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'note= "2'methoxyethyl nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "2'methoxyethyl nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human PLA2 antisense oligonucleotide, ISIS 127988.
                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 5 A; 6 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                  ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                           800 GGACTGACTGAACCCTGGT 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16. .20
/*tag= c
/mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                      2 GAACTAACTGCACCCTGGT 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACC82818 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-2001; 2001US-00016149.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-OCT-2002; 2002WO-US034654.
                                                                                                                                                                                                                                                                                                                                                           84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag= b
                                                                                                                                                                                                                                                                                                                                                             Local Similarity 84.2
les 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003038050-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACC82818;
                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 291
                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACC82818
      ઠે
```

(ISIS-) ISIS PHARM INC.

```
The invention relates to antisense compounds, compositions and methods for modulating phospholipase A2 (PLA2) group V gene expression. PLA2 is also known as calcium dependent phospholipase A2, PLA2G5, hVPLA2 and HPLA2-10. The antisense oligonucleotide is useful for treating an animal having a disease or conditions associated with PLA2 group V, e.g. an autoimmune disorder or an inflammatory disorder. It is also useful for modulating PLA2 group V. The antisense compounds are also useful for modulating strapeutics, prophylaxis, or as research reagents or kits. The present sequence is an antisense oligonucleotide targeted to human PLA2 DNA. This sequence is used to illustrate the method of the invention
                                                                                   New antisense oligonucleotides for modulating phospholipase A2 group V gene expression, particularly useful for treating an autoimmune disorder or an inflammatory disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to adipose-derived stem cells (ADSC) and lattices which are useful for generating differentiated tissues and structures both in vivo and in vitro, for producing molecules such as hormones and for providing a conditioned culture media for supporting the growth and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Adipose-derived stem cell; ADSC; transgene; cell therapy; gene therapy; primer; reverse transcription; RT; PCR; nestin; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New isolated adipose-derived stem cell, useful for generating differentiated tissues and structures both in vivo and in vitro or providing conditioned culture media to support the growth and expansion of other cell populations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lorenz HP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 1.7%; Score 14.2; DB 1; Length 20; Best Local Similarity 84.2%; Pred. No. 3.5e+02; Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Futrell JW, Benhaim P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human nestin gene amplifying reverse RT-PCR primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 5 A; 7 C; 5 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 11; Page 241; 241pp; English.
                                                                                                                                                                                 Example 15; Page 75; 99pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 857 CACTGGTGATGAGCCCAAC 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Llull R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-JUL-2002; 2002WO-US024374.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGTGGTCATGCGCCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-SEP-2001; 2001US-00952522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAD55922 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (REGC ) UNIV CALIFORNIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Katz AJ,
Bennett CF, Wyatt JR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-354531/33.
                                            WPI; 2003-430513/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003022988-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-MAR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hedrick MH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAD55922;
```

ö

predisposition; recessive;

Human, LAG3; diagnosis; multiple sclerosis; MS; predispositio susceptibility; single nucleotide polymorphism; recessive; drug screening; genotyping; neuroprotective; PCR; primer; ss.

11-OCT-2002; 2002WO-SE001859. 12-OCT-2001; 2001SE-00003423.

WO2003031655-A1 Homo sapiens.

17-APR-2003.

(ASTR) ASTRAZENECA AB.

WPI; 2003-393452/37.

Hellgren D,

Human LAG3 genotyping PCR primer, SEQ ID NO:4.

(first entry)

20-NOV-2003

ADA26249;

2 TICTCAGCCCTCTTCAAA 20

ADA26249 standard; DNA; 20

ADA26249

```
.
0
expansion of other cell populations. Lattices are useful as substrates for facilitating the growth and differentiation of cells into mature tissues or structures. The invention is useful for delivering a transgene to an animal. The invention is also useful in cell therapy and gene therapy. The present sequence is reverse transcription PCR (RT-PCR) primer used to amplify human nestin gene. This sequence is used in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This invention represents a compound 8-50 nucleobases in length which specifically hybridizes with a nucleic acid molecule encoding interleukin and inhibits the expression of interleukin 8. The method is cytostatic and immunosuppressive in its action and is an interleukin 8 inhibitor. The compound, composition and methods are useful for treating a disease or condition associated with interleukin 8, such as hyperproliferative or autoimmune disorder. They are also useful in research and diagnostics for represents an oligonucleotide which inhibits the expression of interleukin 8. The present sequence interleukin 8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cytostatic; immunosuppressive; interleukin 8;
hyperproliferative disorder; autoimmune disorder; oligonucleotide; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New compounds, particularly antisense oligonucleotides targeted nucleic acid encoding interleukin 8, useful for treating a disease/condition associated with interleukin 8, such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
                                                                                                                                                                                                                                                                                                                                                                                    Query Match 1.7%; Score 14.2; DB 1; Length 20; Best Local Similarity 84.2%; Pred. No. 3.5e+02; Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 3 A; 6 C; 5 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 6 A; 7 C; 1 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chimeric phosphorothioate oligonucleotide #29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hyperproliferative or autoimmune disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              354 GCCAACCTGTCAGAAGAGC 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 3; Page 76; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20 GACAACCIGGCIGAAGAGC 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACC68929 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-SEP-2002; 2002WO-US029992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-SEP-2001; 2001US-00960143.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Baker BF, Freier SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-354660/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003027327-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-APR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACC68929;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACC68929
ACC68929
ACC6AX
ACC6AX
ACC6AX
ACC6AX
ACC6AX
ACC6AX
ACC6AX
ACC7AX
ACC7AX
ACC7AX
ACC7AX
ACC7AX
ACC7AX
ACC7AX
ACC7AX
ACCCAX
ACCCA
    888688888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
```

```
The invention relates to a method for diagnosing multiple sclerosis (MS) or predisposition to the disease in a human patient. The invention is based on the finding that a C to T single nucleotide polymorphism at C based on the finding that a C to T single nucleotide polymorphism at position 1364 of the coding sequence, corresponding to a Thr455ile at predisposition to MS. Individuals homozygous for the C1364T SNP in exon 7 are present in higher numbers in a group of MS patients compared with a normal control population, indicating that the effect of inAG3 (Thr455ile) on MS susceptibility is recessive, which could relate to the functional structure of LAG3 on the cell membrane. The invention also encompasses the additional determination of the Sequence at the polymorphic sites the additional determination of the LAG3 gene, methods of screening for compounds that can be used to detect the 1364T SNP in the LAG3 ene, and an antibody specific for the 455ile variant of the LAG3 cene, and an antibody specific for the 455ile variant of the LAG3 cene, and an antibody specific for the disease in a human patient, and for screening for modulators of LAG3 activity which can be used to treat MS. CC AG3 gene, and can be used in genetic testing kits for diagnosing min the CLAG3 gene, and can be used in genetic testing kits for diagnosing min the CLAG3 gene, and can be used in genetic testing kits for diagnosing multiple sclerosis or a predisposition to the disease. Sequences ADA26248 corrections of the invention and man indiagnosing min the CLAG3 gene, and can be used in genetic testing kits for diagnosing manification and man
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Diagnosing multiple sclerosis or predisposition to the disease in a human subject, comprises genetic analysis of the LAG3 gene or protein, e.g. identifying polymorphism in the LAG3 gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.7%; Score 14.2; DB 1; Length 20; Similarity 84.2%; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20 BP; 1 A; 8 C; 4 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               genotyping in an example of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 2; Page 18; 35pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            573 TCGCTGCCTCACGTGTCTT 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rccreecreacterin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
g
```

; 0

Gaps

0

Query Match 1.7%; Score 14.2; DB 1; Length 20; Best Local Similarity 84.2%; Pred. No. 3.5e+02; Matches 16; Conservative 0; Mismatches 3; Indels

209 TICCCAGCCTCTCCAGAA 227

Jensen BS;

```
the primers ABV77208-09 were used to amplify a consensus region of the human mu-opicid receptor (hMOR). This opicid receptor belongs to the Granton contain coupled receptor (BCRE) family. The amplified fragment was used to produce a GPCR array of the invention. The specification describes a GPCR array comprising a multiplicity of individual polynucleotide spots standard a solid support. The individual GPCR polynucleotide spot comprises a GPCR polynucleotide composition consisting a non-conserved region of a GPCR polynucleotide family member, where the spots represent at least two different regions of a GPCR polynucleotide family member. The GPCR array is useful for determining the pathogenesis of different ion-related conditions or diseases in humans, e.g. asthma, diabetes, AIDS, allergies, dermattis, psoriassis, narcolepsy, viral or parasitic infections, transplant rejection, lupus, hepatitis, autism, cancer, renal disorders, etc
                                                                                                                                                                                                                                                                                                                                                                                  New G-protein coupled receptor array comprising individual polynucleotide spots stably associated with a surface and a solid support useful for determining the pathogenesis of different ion-related conditions or diseases in humans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human, CD36 antigen-like 1, CD36L1; scavenger receptor class B type 1,
CLA-1; SRB1; SR-BI; cardiovascular; metabolic disorder; atherosclerosis;
lipid metabolism; gene therapy; phosphorothioate backbone; antisense; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mod_base= OTHER
/note= "Phosphorothioate backbone; All cytidines are 5-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human CD36 antigen-like 1 (CD36L1) antisense oligo, ISIS 199330.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20 BP; 1 A; 8 C; 5 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                             Hummel R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                             Jensen JB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 2; Page 30; 43pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              411 CAGCAGGCTCTCCGGCTGC 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccecarecicicaderec 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAL62663 standard; DNA; 20 BP
                                                                                                                                                         21-MAY-2002; 2002WO-DK000337.
                                                                                                                                                                                                     18-MAY-2001; 2001DK-00000802
                                                                                                                                                                                                                                                    (AZIG-) AZIGN BIOSCIENCE AS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ...20
*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-OCT-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 84.2
Matches 16, Conservative
                                                                                                                                                                                                                                                                                               Phirstrup K, Madsen LS,
                                                                                                                                                                                                                                                                                                                                           WPI; 2003-129439/12.
                                                               WO200295065-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
modified_base
                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
Synthetic
                                                                                                             28-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAL62663;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 297
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention describes a method and a kit for determining the expression of mRNA or cDNA of a protein participating in the maintenance of skin structure. The method is quantitative, simple and accurate in the determination of extracellular matrix components of laminin 5 chain genes LAMA3, LAMB3 and LAMC2, matrix metalloproteinases MMP-1, MMP-2, NMP-3 and MMP-9, VII collagen, type I collagen alpha 1 chain, type I collagen alpha 2 chain, type IV collagen alpha 1 chain, type IV collagen alpha 2 chain, TMP-1, TMMP-2 and TMMP-3. ACF57201 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mu-opioid receptor; hMOR; G-protein coupled receptor; GPCR; GPCR array; ion-related disease; asthma; diabetes; AIDS; allersy; dermatitis; psoriasis; Alzheimer's disease; Parkinson's disease; arthritis; depression; narcolepsy; infection; transplant rejection; lupus; hepatitis; autism; cancer; renal disorders; PCR; primer; ss.
                                                                                                                                                                                                                                                                          Human; mouse; skin structure; skin; laminin 5 chain gene; LAMA3; LAMB3;
LAMC2; extracellular matrix component; matrix metalloproteinase; MMP-1;
MMP-2; MMP-3; MMP-9; TIMP-1; TIMP-2; TIMP-3; collagen; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A method and a kit for determination of expression of mRNA or cDNA of protein participating in the maintenance of skin structure.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 14.2; DB 1; Length 20;
Pred. No. 3.5e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCR primer used to amplify consensus region B of hMOR cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 4 A; 7 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                  Human TIMP-3 reverse PCR primer SEQ ID NO:86.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  824 GGGTGCTGAAGCTGGTACC 842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 4; 34pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           decracrecaecregrace 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABV77208 standard; DNA; 20 BP.
                                                                                            ACF57286 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JAN-2002; 2002JP-00006797.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-JAN-2001; 2001JP-00006952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.7%;
ilarity 84.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (SHIS ) SHISEIDO CO LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-407328/39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                           JP2002330792-A.
                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-MAR-2003
                                                                                                                                                                                       16-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nvention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                           ACF57286;
                                                RESULT 295
ACF57286/c
```

ö

Gaps

ö

Indels

RESULT 296

g

Fri

```
The invention describes a method of treating an inflammatory disorder in an individual, comprising administering to the individual an oligonucleotide upto 30 mucleotides in length complementary to a nucleic acid molecule encoding human tumor necrosis factor (TNF)-alpha. The method is useful for treating an inflammatory disorder such as inflammatory bowel disease, Crohn's disease, colitis or rheumatoid attritis, in an individual. The method is also useful for treating diabetes, pancreatitis, multiple sclerosis, atopic dermatitis, asthma, and hepatitis in an individual. This sequence represents an antisense of inflammatory when individual this sequence represents an antisense of the colliponucleotide used to modulate expression of tumour necrosis factor
                                                                                                                                                                                                                                                                                                                           Treating inflammatory disorders such as inflammatory bowel disease,
Crohn's disease or rheumatoid arthritis, in a subject, by administering
oligonucleotide which inhibits expression of human tumor necrosis factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cartilage growth, cartilage differentiation; cartilage disorders; rheumatoid arthritis; osteoarthritis; osteoporosis; human; NPATp; calcineurin-interacting region; ss; RT-PCR; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; tive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 4 A; 6 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                           Shanahan WR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human cartilage culture RT-PCR primer #15.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 24; Page 38; 142pp; English.
                                                                                                                                                                                                                                           Baker BF, Bennett CF, Butler MM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     743 AGCCTTGGTCCTTAAGGAG 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 AGCCTTGGCCCTTGAAGAG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADB97600 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-00087139.
                         02-APR-2001; 2001US-00824322.
                                                                  98US-00166186.
99US-00313932.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 84.2
nes 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Glimcher LH, Ranger AM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HARD ) HARVARD COLLEGE
                                                                                                                                                                        (BUTL/) BUTLER M M.
(SHAN/) SHANAHAN W R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   reverse transcriptase
                                                                                                                               BAKER B F. BENNETT C F.
                                                                                                                                                                                                                                                                                    WPI; 2003-447433/42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 alpha (TNF-alpha)
                                                                  05-OCT-1998;
18-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US6548734-B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADB97600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                               (BAKE/)
(BENN/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADB97600
      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to antisense compounds, compositions and methods for modulating the expression of class B scavenger receptor, CD36 antigen-like I (CD36L1). CD36L11 is also known as scavenger receptor class B type I (SRB1), CLA-1 and mouse homologue, SR-BI. The antisense compound is useful for preparing a composition for treating metabolic or cardiovascular disorder, e.g. altered lipid metabolism or atherosclerosis. It is also used in gene therapy. The present sequence is an antisense oligonucleotide targetted to human CD36L1 DNA. This sequence is used to illustrate the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tumour necrosis factor alpha, TNP-alpha, antiinflammatory, antirheumatic, antidiabetic; dermatological, hepatotropic; antiasthmatic, inflammatory disorder, inflammatory bowel disease, Crohn's disease, colitis; rheumatoid arthritis, diabetes, pancreatitis, multiple sclerosis, atopic dermatitis, asthma, hepatitis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New compound, having a sequence targeted to a nucleic acid encoding CD36L1, useful for preparing a composition for treating hyperproliferative or autoimmune disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumour necrosis factor alpha antisense oligonucleotide #295.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Match 1.7%; Score 14.2; DB 1; Length 20; Local Similarity 84.2%; Pred. No. 3.5e+02; les 16; Conservative 0; Mismatches 3; Indels
                                                         /mod_base= OTHER
/note= "2'methoxyethyl nucleotides"
16. .20
                                                                                                                                                                           'note= "2'methoxyethyl nucleotides'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20 BP; 5 A; 9 C; 3 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 15; Page 81; 122pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     637 CCCGCTCCCTGCAACCGAG 655
                                                                                                                                  /*tag= c
/mod_base= OTHER
methylcytidines"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cccccrcrcrccaaaccaa 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACD05292 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                        09-DEC-2002; 2002WO-US039183
                                                                                                                                                                                                                                                                                                                                                 18-DEC-2001; 2001US-00024396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                           Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antisense technology; ss
                                               *tag=
                                                                                                                                                                                                                                                                                                                                                                                             (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-533006/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2003022848-A1
                                                                                                                                                                                                                    WO2003052062-A2
                      modified base
                                                                                                           modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-AUG-2003
                                                                                                                                                                                                                                                             26-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Dobie KW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACD05292,
```

RESULT 298

Matches

8

* 13n

.; 0

Gaps

. 0

```
RESULT 302
ADD68954/c
8888888
                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                           The invention relates to a method of identifying a compound that modulates cartilage growth or differentiation. The method is useful for differentiation a compound that modulates cartilage growth and/or modulating. The compound identified by the method is useful for modulating cartilage cell growth and/or differentiation, and thus in the treatment of disorders, e.g. rheumatoid arthritis, osteoarthritis and osteoporosis. The present sequence represents a human cartilage culture reverse transcriptase (RT)-PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention comprises antisense oligonucleotides which are targeted to the human mdm2 gene. The antisense oligonucleotides of the invention are useful for reducing hyperproliferation of human cells. The antisense oligonucleotides are also useful for treating: hyperproliferative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel antisense compound targeted to 5' untranslated region, coding region, or intron:exon junction of nucleic acid molecule encoding mdm2, useful for treating e.g. cancer, psoriasis or restenosis by inhibiting
                                                                                           treating osteoarthritis, by determining effect of the compound on cartilage cells with/without nuclear factor of activated cells (NFATD)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chiang MY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                      growth/differentiation modulator, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antisense oligonucleotide; human; mdm2; hyperproliferation; hyperproliferative disorder; cancer; psoriasis; fibrosis; atherosclerosis; restenosis; apoptosis modulation; p21; ss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
1.7%; Score 14.2; DB 1; Length 20;
Best Local Similarity 84.2%; Pred. No. 3.5e+02;
Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Koller E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2'-methoxyethoxy-residue; phosphorothioate backbone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 6 A; 3 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Monia BP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human mdm2 antisense oligonucleotide #10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 2; SEQ ID NO 12; 289pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Graham MJ,
                                                                                                                                                                                                    Disclosure; Col 38; 36pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         771 CTGGAGAAGAAGTGTGAGC 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        credadadadecrardade 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADD21447 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-DEC-2002; 2002WO-US038281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-DEC-2001; 2001US-00005344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nero PS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-577263/54.
                            WPI; 2003-742833/70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2003048315-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Manoharan M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Miraglia LJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADD21447;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mdm2
     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   THE STATE OF THE S
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
disorders (e.g. cancer), psoriasis, fibrosis, atherosclerosis, or restenosis. The antisense oligomucleotides are also useful for modulating appetosis, and for increasing expression of p21. The present DNA sequence represents a human mdm2 gene antisense oligomucleotide of the invention. The present sequence contains 2'-methoxyethoxy-residues and has a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention comprises a method for determining the risk of periodontal disease. The method involves a 35 kDa protein being fractionated from the saliva of a patient and the intensity of the 35 kDa band determined - a high concentration of the protein indicates a high risk. The method of the invention is useful for determining the risk of periodontal disease in a patient. The present DNA sequence represents a PCR primer that was used in an example of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       assay of 35 kDa protein in saliva for determining the risk
                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human saliva (periodontal disease-related) protein PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          periodontal disease; 35 kDa; saliva; PCR; ss; primer; human.
                                                                                                                                                                                                                                    1.7%; Score 14.2; DB 1; Length 20;
84.2%; Pred. No. 3.5e+02;
ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.7%; Score 14.2; DB 1; Length 20;
44.2%; Pred. No. 3.5e+02;
ve 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 4 A; 8 C; 5 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                           Seguence 20 BP; 5 A; 6 C; 3 G; 6 T; 0 U; 0 Other,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 4; SEQ ID NO 29; 94pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       195
                                                                                                                                                                                                                                                                                                                                                   465 GAGCTCCAGGAACTTGGCA 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N
                                                                                                                                                                                                                                                                                                                                                                                                  GATCTACAGGAACTTGGTA 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (WAKP ) WAKO PURE CHEM IND LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-MAR-2002; 2002JP-00094010.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACAGTCACAGTGGCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAATGTCACTGTGGCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-MAR-2003; 2003WO-JP003269
                                                                                                                                                                                                                                                                   ilarity 84.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                 The present sequence conta
phosphorothioate backbone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADD27891 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-812556/76.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  periodontal disease.
                                                                                                                                                                                                                                                                     Local Similarity
hes 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TAKA/) TAKANO K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003083472-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Method of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rakano K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADD27891;
                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADD27891
```

```
/note= "Phosphorothioate backbone; All cytidines are methyl cytidines"
tumour; cytostatic; virucide; antisense therapy; antisense; human; phosphorothicate backbone; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New antisense oligonucleotides targeted to nucleic acids encoding hematopoietic cell protein tyrosine kinase, useful for diagnosing treating cancer (e.g. leukemia), inflammation, diabetes or viral
                                                                                                                                                                                                                                                         /*tag= b
/mod_base= OTHER
/mote= "2'-O-methoxyethyl (2'-MOE) nucleotides"
16. .20
                                                                                                                                                                                                                                                                                                                                                        /mod_base= OTHER
/note= "2'-O-methoxyethyl (2'-MOE) nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 3 A; 9 C; 5 G; 3 T; 0 U; 0 Other;
                                                                                                                    Location/Qualifiers
1. .20
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 15; Page 25; 59pp; English.
                                                                                                                                                                                /mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          561 CAGCAGGGATCCTCGCTGC 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-DEC-2001; 2001US-00007010.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-DEC-2001; 2001US-00007010.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 cadcccddarccrcdcadc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT64324/c
ID AAT64324 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                         /*tag= c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-811000/76.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
es 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                 US2003125275-A1
                                                                                                                                           modified base
                                                                                                                                                                                                                                         modified base
                                                                                                                                                                                                                                                                                                                     modified base
                                                                 sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Borchers AH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-JUL-2003.
                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel compound targeted to a nucleic acid molecule encoding a B-cell associated protein (BAP), where the compound specifically hybridises with the nucleic acid and inhibits expression of the protein. The compound of the invention demonstrates cytostatic, antinflammatory and antimicrobial activities and may be useful for inhibiting the expression of BAP in cells or tissues thus, via antisense therapy, preventing a hyperproliferative disorder such as cancer, particularly breast or prostate cancer, as well as a disorder characterised by altered levels of apoptosis, infection or inflammation. The current sequence is that of the human B-cell associated protein-targeted antisense oligonucleotide of the invention which comprises 2'-mothoxyethyl) "wings and a phosphorothioate backbone. In addition, all cytidine residues are 5' methylcytidines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New antisense compound that hybridizes and inhibits a nucleic acid encoding a B-cell associated protein, useful for treating animal having disease or condition associated with B-cell associated protein, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Haematopoietic cell, tyrosine kinase, hyperproliferative disorder, cancer, therapy, inflammation, diabetes, viral infection, inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human haematopoietic cell tyrosine kinase antisense oligo ISIS #150720.
                                                                                                                          21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                          Human B-cell associated protein-targeted antisense oligo - SED ID
                                                                                                                                                           B-cell associated protein, BAP; cytostatic; antiinflammatory; antiinflammatory; antiinfacrobial; antisense therapy; hyperproliferative; breast; prostate cancer; apoptosis; infection; inflammation; human; ss; phosphorothioate backbone; 2'-MOE wing; 2'-methoxyethyl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.7%; Score 14.2; DB 1; Length 20; 84.2%; Pred. No. 3.5e+02; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seguence 20 BP; 3 A; 6 C; 4 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 3; SEQ ID NO 21; 107pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    238 TGGCTCAGCTCTTGAAGGA 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       reccedenacricanden 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP.
                                                                                                                                                                                                                                                                                                                                                                            10-DEC-2002; 2002WO-US039580
                                                                                                                                                                                                                                                                                                                                                                                                                   13-DEC-2001; 2001US-00020478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 84.2
es 16; Conservative
          ADD68954 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bennett CF, Dobie KW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-569148/53.
                                                                                                                                                                                                                                                                                                  WO2003052065-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-JAN-2004
                                                                                      15-JAN-2004
                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                         26-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAD62166;
                                               ADD68954;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAD62166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAD62166
```

ö

```
The invention relates to a compound targetted to a nucleic acid molecule encoding haematopoietic cell protein tyrosine kinase. The compound inhibits the expression of haematopoietic cell protein tyrosine hinase and it specifically hybridises with the nucleic acid molecule encoding the tyrosine kinase or with at least an 8-nucleobase portion of an active site on the nucleic acid molecule encoding the tyrosine kinase. The cartisense compounds are useful for modulating the expression of haematopoietic cell protein tyrosine kinase and treating diseases or conditions associated with the expression of the tyrosine kinase, such as hyperoliferative disorders (e.g. cancer), inflammation, diabetes or a viral infection. The antisense compounds are also useful for diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay infection, inflammation or tumour formation, as research reagents and kits and in pathway. The present functions of various members of a biological pathway. The present sequence is human haematopoietic cell tyrosine kinase antisense oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.7%; Score 14.2; DB 1; Length 20;
84.2%; Pred. No. 3.5e+02;
Live 0; Mismatches 3; Indels
```

ò 셤

```
Human, vascular cell adhesion molecule; VCAM-1; antisense; septic shock; downregulation; inflammation; leukocyte adhesion; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence is that of an antisense oligonuclectide complementary to a region in the precursor or mature mRNA of human vascular cell adhesion molecule VCAM-1. The antisense oligonuclectide (preferably containing phosphorothioate linkages) is used for downregulating VCAM-1 synthesis which in turn results in a reduction in adhesion of leukocytes to the endothelium and hence to a reduced inflammatory response. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                    Antisense oligo:nucleotide(s) for treating septic shock - with sequence complementary to VCAM-1 mRNA transcript.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Retroperitoneal fibromatosis herpes virus; detection; infection;
Kaposi's sarcoma herpes virus; viral DNA; viral RNA; vaccine; antigen;
antibody; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                             Antisense oligonucleotide #6 complementary to human VCAM-1 mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 1.7%; Score 14.2; DB 1; Length 21; Best Local Similarity 84.2%; Pred. No. 3.7e+02; Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KSHV DNA polymerase specific oligonucleotide HVLQB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 21 BP; 4 A; 9 C; 1 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                              Williams TJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               761 GATGGCAGAACTGGAGAAG 779
                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Col 28; 18pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bradley MO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96WO-US011688.
                                                                                                                                                                                                                               93US-00137701
                                                                                                                                                                                                                                                         92US-00918256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT51587 standard; DNA; 21
                                      (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                   (USNA ) US SEC OF NAVY
                                                                                                                                                                                                                                                                                                                                          WPI; 1997-107618/10.
                                                                                                                                                                                                                                                                                                              Hoke GD,
                                                                                                                                                                                                                              12-OCT-1993;
                                                                                                                                                                                                                                                         24-JUL-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9704105-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-JUL-1996;
                                     25-MAR-2003
21-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-NOV-1997
                                                                                                                                                                           US5596090-A
                                                                                                                                                                                                     21-JAN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-FEB-1997
                                                                                                                                                Synthetic.
            AAT64324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAT51587
                                                                                                                                                                                                                                                                                                              cee C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAT51587,
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
```

; 0

```
The present sequence represents oligomucleotide HVLQB which is specific for polymucleotides encoding DNA polymerases from Kaposi's sarcoma herpes virus (KSHV). The oligomucleotide may be used for detecting viral DNA or RNA in a sample of primate origin, especially in the diagnosis of herpes viral infection. Herpes virus DNA polymerases of this invention, may be used in vaccines for the protection against infection by a herpes virus of the KRHVKSHV family. They may also be used in the design and screening of anti-viral drugs. Antibodies raised against the polymerase or fragments of it, may be used in the detection of herpes virus infection and for drug targetting for the therapy of herpes virus
                                                                                                                                                                                                                                                                         Herpes virus DNA polymerase and corresponding nucleotide sequence - used in the detection and treatment of herpes virus infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA encoding glyco:protein B of Retro:peritoneal fibromatosis and Kaposi's sarcoma associated Herpes viruses - useful in vaccines for treatment of herpes infection or for detection of viral DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KSHV; gamma herpes virus; glycoprotein B; vaccine; infection; human Kaposi's sarcoma-associated herpes virus; probe; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.7%; Score 14.2; DB 1; Length 21;
84.2%; Pred. No. 3.7e+02;
ative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KSHV DNA polymerase antisense oligonucleotide HVLQB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 21 BP; 3 A; 4 C; 11 G; 3 T; 0 U; 0 Other;
                                                                                                                                                    Todaro GJ
                                                                                                                                                                                                                                                                                                                                                                    Claim 26; Page 92; 132pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 404 CCTGCTCCAGCAGGCTCTC 422
                                                                                                                                                 Bosch ML, Strand K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19 CGTCCTCCAGCAGGCCCTC
95US-0001148P.
96US-00680326.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96WO-US015702.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 95US-0004297P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Strand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAT84695 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match
Best Local Similarity 84.2.
المالية المال
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-JAN-1998 (first entry)
                                                                                    (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1997-212901/19.
                                                                                                                                                                                                               WPI; 1997-132644/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bosch ML,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA polymerase; ss.
14-JUL-1995;
11-JUL-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9712042-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAT84695;
                                                                                                                                                 Rose IM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rose IM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAT84695,
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

Claim 37; Page 76; 138pp; English

ö

BP

(first entry)

```
New kallikrein-like (KLK-L) proteins for diagnosing and treating KLK-L protein mediated disorders, especially cancer.
                                                                                                                                                                                                                                                                                    Human, KLK-L1; KLK-L2; KLK-L3; KLK-L4; KLK-L5; KLK-L6; pS2;
kallikrein-like protein; serine protease; cytostatic; cancer;
prostrate cancer; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 5; Page 80; 184pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (MOUN ) MOUNT SINAI HOSPITAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-MAR-2000; 2000WO-CA000258
                                                                                                  AAA95943 standard; DNA; 21
                                                                                                                                                                                                                                                Human pS2 PCR primer PS2AS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yousef GM, Diamandis EP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-587440/55.
                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200053776-A2.
                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-APR-1999;
                                                                                                                                                                                                  02-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-SEP-2000.
                                                                                                                                                AAA95943;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                 RESULT 308
AAA95943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                         ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                ö
Claimed type 3 oligonucleotides (AAT84694-96) are specific non-degenerate obligonucleotides for the buman Kaposi's sarcoma— associated herpes virus (KSHV) DNA polymerase (gB). They can be used for detecting, amplifying or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      inflammatory component, e.g. acne, psoriasis, arthritis, organ rejection, wounds, burns, septic shock or inflammatory complications of septic shock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The sequence is that of an antisense oligonucleotide which is substantially complementary to at least a portion of the pre- or mature RNA transcript of human intracellular adhesion molecule (ICAM), E-selectin or vascular cell adhesion molecule (VCAM). It can be used to inhibit expression of these proteins. Inhibition of these proteins the basis for treatment of conditions and diseases that have an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Antisense oligonuclectides to ICAM-1, E-selectin or VCAM-1 - useful for treating diseases having an inflammatory component, e.g. psoriasis, wounds and septic shock.
                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ICAM-1; intracellular adhesion molecule-; E-selectin; VCAM-1; vascular cell adhesion molecule-1; antisense; inflammatory; disease; treatment; septic shock; psoriasis; wounds; burns; acne; arthritis; organ rejection; inhibition; expression; ss.
                                                                                                                                                                                                                                             ;
                                                                                                                                                                                            Match 1.7%; Score 14.2; DB 1; Length 21; Local Similarity 84.2%; Pred. No. 3.7e+02; es 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.7%; Score 14.2; DB 1; Length 21; 4.2%; Pred. No. 3.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human ICAM-1, E-selectin, VCAM-1 antisense oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 21 BP; 3 A; 10 C; 1 G; 7 T; 0 U; 0 Other;
                                                                                                                                                Sequence 21 BP; 3 A; 4 C; 11 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lee C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hoke GD, Bradley MO, Williams TJ,
                                                                                                                                                                                                                                                                                         404 CCTGCTCCAGCAGGCTCTC 422
19 CGTCCTCCAGCAGGCCCTC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 8; Page 41; 48pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAV38642 standard; DNA; 21 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96WO-US019194.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96WO-US019194.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (DYAD-) DYAD PHARM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1998-333253/29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9824797-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAV38642;
                                                                                                  AAT84697)
                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 30
AAV38642/
ID AAV3
XX
AAV3
XX
AAV3
DT 13-0
DT 13-0
DX
XX
OS HOMO
XX

                                                                                                                                                                                                                                                                                                                                     g
  88888888
                                                                                                                                                                                                                                                                                               ₽
```

99US-0124260P. 99US-0127386P. 99US-0144919P.

```
..
o
The present sequence is a PCR primer used to amplify the human pS2 gene as a control in the RT-PCR analysis of the human KLK-44 gene. KLK-L1 encodes a kallikrein-like protein. Kallikreins and kallikrein-like protein. Kallikreins are a subgroup of the serine protease enzyme family. They catalyse the selective cleavage of specific polypeptide precursors to release peptides with potent biological activity. Nucleic acids encoding kallikrein-like proteins KLK-L1, KLK-L2, KLK-L3, KLK-L5, and KLK-L6 is have been isolated. The proteins are useful in the treatment, monitoring and diagnosis of cancers, especially prostrate cancer. They can also be used to identify a substance that can associate with or mediate the biological activity of the proteins. Antibodies can be used to treat conditions mediated by the kallikrein-like proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Match 1.7%; Score 14.2; DB 1; Length 21; Local Similarity 84.2%; Pred. No. 3.7e+02; les 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 21 BP; 3 A; 3 C; 11 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             598 GGTGGCGGTGGACGTGGC 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 GGTGTCCGGTGGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA95900 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human pS2 PCR primer PS2AS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAA95900;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAA95900
ID AAA9
XX AAA9
AC AAA9
XX DT 02-F
XX XX
```

ô

Gaps

. 0

3; Indels

0; Mismatches

16; Conservative

761 GATGGCAGAACTGGAGAAG 779

ò

21 GATGAGAGAACTGGAGGAG 3

```
The present sequence is a PCR primer used to amplify the human pS2 gene as a control in the RT-PCR analysis of the human KIK-L1 gene. KLK-L1 gene codes a kallikrein-like protein. Kallikreins and kallikrein-like proteins are a subgroup of the serine protease enzyme family. They catalyse the selective cleavage of specific polypeptide precursors to release peptides with pottent biological activity. Nucleic acids encoding kallikrein-like proteins KLK-L1, KLK-L2, KLK-L3, KLK-L4, KLK-L5 and KLK-L6 have been isolated. The proteins are useful in the treatment, monitoring and diagnosis of cancers, especially prostrate cancer. They eam also be used to identify a substance that can associate with or mediate the biological activity of the proteins. Antibodies can be used to treat conditions mediated by the kallikrein-like proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human diacylglycerol kinase beta (hDAGKbeta) protein and its modulating compounds, useful for treatment of neurodegenerative and mood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human, diacylglycerol kinase beta, DAGKbeta, diacylglycerol; DAG; phosphatidic acid; DAG-dependent protein kinase C activation; mood disorder; epilepsy; neurodegenerative disorder; anxiety; schlizophrenia; migraine; drug dependence; stroke; Alzheimer's dementia; parkinson's disease; PCR primer; ss.
                                                                                                                                                                                                                                                     New kallikrein-like (KLK-L) proteins for diagnosing and treating KLK-L protein mediated disorders, especially cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCR primer used to amplify cDNA encoding full length human DAGKbeta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               o'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 1.7%; Score 14.2; DB 1; Length 21; Best Local Similarity 84.2%; Pred. No. 3.7e+02; Matches 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 21 BP; 3 A; 3 C; 11 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G,
                                                                                                                                                                                                                                                                                                                                       Example 3; Page 76; 184pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   598 GGTGGCGGTGGACGTGGC 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
99US-0124260P.
99US-0127386P.
99US-0144919P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAA63852 standard; DNA; 21 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGTGTCCGGTGGAGGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99GB-00003430.
                                                                                                    (MOUN ) MOUNT SINAI HOSPITAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-DEC-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Caldara F,
                                                                                                                                                        Diamandis EP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GLAX ) GLAXO GROUP LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-506093/45.
                                                                                                                                                                                                       WPI; 2000-587440/55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200047723-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Caricasole A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-FEB-1999;
     11-MAR-1999;
                        01-APR-1999;
21-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    L7-AUG-2000
                                                                                                                                                        Yousef GM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 311
AAA63852/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ношо
     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    THE CONTRACT OF THE CONTRACT O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence is a PCR primer used to amplify the human pS2 gene as a control in the RT-PCR analysis of the human KIK-Li gene. KIK-Li genecodes a kallikrein-like protein. Kallikreins and kallikrein-like protein. Kallikreins and kallikrein-like proteins are a subgroup of the serine protease enzyme family. They catalyse the selective cleavage of specific polypeptide precursors to release peptides with potent biological activity. Nucleic acids encoding kallikrein-like proteins KIK-Li, KIK-Li and KIK-monitoring and diagnosis of cancers, especially prostrate cancer. They mentioring be used to identify a substance that can associate with or mediate the biological activity of the proteins. Antibodies can be used to treat conditions mediated by the kallikrein-like proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New kallikrein-like (KLK-L) proteins for diagnosing and treating KLK-L protein mediated disorders, especially cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
0
Human; KLK-L1; KLK-L2; KLK-L3; KLK-L4; KLK-L5; KLK-L6; pS2;
kallikrein-like protein; serine protease; cytostatic; cancer;
prostrate cancer; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; KLK-L1; KLK-L2; KLK-L3; KLK-L4; KLK-L5; KLK-L6; pS2;
kallikrein-like protein; serine protease; cytostatic; cancer;
prostrate cancer; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.7%; Score 14.2; DB 1; Length 21; 34.2%; Pred. No. 3.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 21 BP; 3 A; 3 C; 11 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 2; Page 73; 184pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598 GGTGGCGGGTGGACGTGGC 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 GGTGTCCGGTGGAGGTGGC 20
                                                                                                                                                                                                                                                                                                              99US-0124260P.
99US-0127386P.
99US-0144919P.
                                                                                                                                                                                                                                                                09-MAR-2000; 2000WO-CA000258.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-MAR-2000; 2000WO-CA000258
                                                                                                                                                                                                                                                                                                                                                                                                                      MOUN ) MOUNT SINAI HOSPITAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ilarity 84.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA95909 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human pS2 PCR primer PS2AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Diamandis EP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-587440/55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 16; Conserv
                                                                                                                                                           WO200053776-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200053776-A2
                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                 11-MAR-1999;
01-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                     21-JUL-1999;
                                                                                                                                                                                                               14-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cousef GM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA95909;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAA95909
        ઠે
```

ö

Gaps

schu568-1.rng

```
RESULT 313
                                                                                                                                                Matches
                                                                                                                                                                                                                                                 AAF26198/
                                                                                                                                                                                                                                                             888888888888
                                                                                                                                                                         ð
                                                                                                                                                                                                                        ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This invention describes a novel protein (1) with beta-'leaflet' structure having surface-exposed amino acids, present in at least two surface-exposed beta-strands of a surface-exposed beta-leaflet. The protein is altered by targeted mutagenesis so that it has new, or improved, specific binding, catalytic or fluorescent properties. The invention also describes (1) DNA (11) that encodes (1); (2) RNA (111) derived from (11); (3) prokaryotic and eukaryotic vectors and cells that contain (11) or (111), or their fragments that encode a functional region of (1); and (4) method for producing (1). (1) are useful for diagnosis and therapy, in cosmetics, bioseparation and biosensors, and for
                                             PCR primers AAA61851-52 were used to amplify cDNA encoding full length human diacylglycerol kinase beta (DAGKbeta). DAGK converts diacylglycerol (DAG) to phosphatidic acid and attenuates bedgedependent protein kinase C activation. Compounds that modulate the activity of DAGKbeta may be administered to a human patient for the treatment or prophylaxis of a daisorder that is responsive to modulation of DAGK activity. The disorder may be a mood disorder, epilepy, a neurodegenerative disorder, anxiety, schizophrenia, migraine, drug dependence, stroke, Alzheimer's dementia or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mutated proteins having beta-leaflet structure and related nucleic acid, have new or improved properties, e.g. antibody-like specific binding or
                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pollution detection and control, e.g. for specific targeting of gene
                                                                                                                                                                                                                                                                                                                                                                                                                                  Gamma-crystalline; mutant; beta-leaflet; cosmetic; bioseparation;
biosensor; pollution detection; pollution control; gene therapy;
intracellular immunization; primer; ss.
                                                                                                                                                                                                                        ;
                                                                                                                                                                                               Length 21;
                                                                                                                                                                                                                        3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                             Gamma-crystalline mutant associated primer GCLISEQ.
                                                                                                                                                                       Sequence 21 BP; 3 A; 7 C; 5 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                            Score 14.2; DB 1;
Pred. No. 3.7e+02;
0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Reimann
                          Disclosure; Page 15; 57pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Boehm G,
                                                                                                                                                                                                                                                 771 CTGGAGAGAAGTGTGAGC 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example; Page 10; 28pp; German.
                                                                                                                                                                                                                                                                        cresasadascrareasc 1
                                                                                                                                                                                                                                                                                                                                     AAF26215 standard; DNA; 21 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99DE-01032688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99DE-01032688
                                                                                                                                                                                                            84.2%;
                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                               Query Match
Best Local Similarity 84.2
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rudolph R, Fiedler U,
                                                                                                                                              Parkinson's disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-148304/16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         catalytic activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (FIED/) FIEDLER U. (RUDO/) RUDOLPH R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DE19932688-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18-JAN-2001.
                                                                                                                                                                                                                                                                                                                                                                                     26-APR-2001
                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                              AAF26215;
                                                                                                                                                                                                                                                                                                             ò
```

```
This invention describes a novel protein (I) with beta-'leaflet'
structure having surface-exposed amino acids, present in at least two
structure having surface-exposed amino acids, present in at least two
surface-exposed beta-strands of a surface-exposed beta-leaflet. The
protein is altered by targeted mutagenesis so that it has new, or
improved, specific binding, catalytic or fluorescent properties. The
improved specific binding, catalytic or fluorescent properties. The
invention also describes (I), (D) RMA (II) that encodes (I); (2) RMA (III)
derived from (II), (3) prokaryotic and enkaryotic vectors and cells that
contain (II) or their fragments that encode a functional region
of (I); and (4) method for producing (I). (I) are useful for diagnosis
and therapy, in cosmetics, bioseparation and biosensors, and for
pollution detection and control, e.g. for specific targeting of gene
therapy vectors and for intracellular immunization. (I) can be provided
with new or improved specific antibody-like binding, catalytic or
producing complete or recombinant antibodies. (I) are relatively small
companies and can be expressed with other components as multifunctional
fusions. They have good stability against low pH, denaturing agents and
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                    with new or improved specific antibody-like binding, catalytic or fluorescent properties, without the cost and difficulties associated with producing complete or recombinant antibodies. (1) are relatively small (20 kDa) and can be expressed with other components as multifunctional fusions. They have good stability against low pH, denaturing agents and high temperatures, conditions under which antibodies are unstable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mutated proteins having beta-leaflet structure and related nucleic acid, have new or improved properties, e.g. antibody-like specific binding or
vectors and for intracellular immunization. (I) can be provided
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gamma-crystalline; mutant; beta-leaflet; cosmetic; bioseparation;
biosensor; pollution detection; pollution control; gene therapy;
intracellular immunization; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
0
                                                                                                                                                                                                                                                                                                                                                                             1.7%; Score 14.2; DB 1; Length 21; 34.2%; Pred. No. 3.7e+02; lve 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gamma-crystalline mutant associated primer SEQ ID 8.
                                                                                                                                                                                                                                                                                                        Sequence 21 BP; 3 A; 4 C; 8 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reimann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        916 AAGACAGCGGGACTTTCAG 934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Boehm G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example; Page 14; 28pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19 AACACCGGCACTTTCAG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99DE-01032688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99DE-01032688
                                                                                                                                                                                                                                                                                                                                                                                                                          84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAF26198 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rudolph R, Fiedler U,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-148304/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              catalytic activity.
                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ъ.
ж
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (FIED/) FIEDLER (RUDO/) RUDOLPH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DE19932688-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-JAN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAF26198;
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
```

Fri

```
Query Match
                                                                                                                        AAC91373
                                                 ਨੇ
                                                                    g
                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>Q</u>
                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention provides a method of diagnosing a vascular disease in an individual, involving determining the sequence at various oblymorphic sites within the human thrombospondin 1 and thrombospondin 4 genes. The sequences at a number of polymorphic sites are also provided in the specification. In particular the method can be used in the diagnosis of atherosclerosis, myocardial infarction, coronary heart disease, stroke, peripheral vascular diseases, venous thromboembolism and pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also correlations to diseases. The present sequence is an example of one of the human gene SNPS shown in the specification
                                                                                                                                                                                                                                                                              Human; variant thrombospondin 1; variant thrombospondin 4; SNP; polymorphism; vascular disease; coronary artery disease; forensics; myocardial infarction; atherosclerosis; stroke; venous thromboembolism; pulmonary embolism; paternity test; ds.
                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mccarthy JJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nucleic acids comprising single nucleotide polymorphisms, useful in applications such as forensics, paternity testing, medicine, genetic analysis and phenotype correlations to diseases such as diabetes and
high temperatures, conditions under which antibodies are unstable
                                                                                                                                                                                                                                                                                                                                                                                               /*tag= a
/standard_name= "single nucleotide polymorphism"
                                                                        ;
                                             / Match 1.7%; Score 14.2; DB 1; Length 21; Local Similarity 84.2%; Pred. No. 3.7e+02; nes 16; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Daley GQ,
                         G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 21 BP; 4 A; 7 C; 5 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                         Human gene single nucleotide polymorphism #1424.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gargill M, Ireland JS, Bolk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (WHED ) WHITEHEAD INST BIOMEDICAL RES. (MILL-) MILLENNIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers replace (11,G)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example; Page 145; 242pp; English
                                                                                                 CAG 934
                                                                                                                     19 AACACCGGCACTTTCAG 1
                                                                                                                                                                                   BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-SEP-2000; 2000WO-US024503.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0153357P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-AUG-2000; 2000US-0225724P
                         Sequence 21 BP; 3 A; 4 C; 8
                                                                                                                                                                                  AAF96663 standard; DNA; 21
                                                                                                                                                                                                                                   (first entry)
                                                                                                 916 AAGACAGCGGGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-226749/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                atherosclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200118250-A2
                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    36-JUL-2000;
                                                                                                                                                                                                                                   06-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lander ES,
                                                                                                                                                                                                           AAF96663;
                                                                                                                                                                                                                                                                                                                                                                                  Variation
                                                 Query Match
                                                              Best Loca
Matches
                                                                                                                                                            RESULT 314
AAF96663
                                                                                                                                                                                               ò
```

```
·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence was used in the construction of an expression vector concording a modified annexin having an N-terminal chelation site, which comprises an amino acid extension including a glycine and a cysteine residue. The modified annexin is useful for imaging vascular thrombic apoptics; which is associated with response to a chemotherapeutic agent or with rejection as a result of transplantation. The modified annexin can effectively chelate a radiouchaid and retain annexin bloactivity. It can be readily prepared in high radiochemical yield and with high radiochemical purity. In contrast to conventional conjugation chemistries that provide a distribution of conjugation products, the modified annexin has a single chelation site remote from the site of biological activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel modified annexin useful for imaging vascular thrombi and apoptosis, has N-terminal chelation site comprising amino acid extension which comprises a glycine and a cysteine residue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Oligo JT-295 for construction of annexin expression vector pJ117.
                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ·.
1.7%; Score 14.2; DB 1; Length 21;
84.2%; Pred. No. 3.7e+02;
tive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human, annexin, chelation site; nuclear imaging; apoptosis; transplant rejection; pJ117; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 21 BP; 3 A; 4 C; 9 G; 5 T; 0 U; 0 Other,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.7%; Score 14.2; DB 1;
84.2%; Pred. No. 3.7e+02;
rative 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page 12; 39pp; English
                                                                                                           849 CAGCCCCCCACTGGTG 867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600 TGGCGGGTGGACGTGGCCA 618
                                                                                                                                                            2 carcreceaargerearg 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABA02307 standard; DNA; 21 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGCAGGTGGCTGTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAY-2000; 2000WO-US014324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-00324096
                                                                                                                                                                                                                                                                                                 21
                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                 AAC91373 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-080465/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 16; Conserv
                         Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Brown DS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200073332-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                          16-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-DEC-2000
                                                                                                                                                                                                                                                                                                                                                    AAC91373;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABA02307;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tait JF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 316
ABA02307/c
ID ABA023
XX
AC ABA023
                                                                                                                                                                                                                                              RESULT 315
```

Edmondson SR;

```
The present invention relates to a method for ameliorating the effects of skin disorders. The method comprises contacting the skin with an antisense oligonuclectide, (for Insulin-like Growth Factor [GRF]).

The presence oligonuclection [GRFB]-2 or IGRFB3), which is capable of inhibiting or reducing growth factor mediated cell proliferation, inflammation and/or other disorders. The present sequence is an inflammation and/or other disorders. The present sequence is an inflammation and/or other disorders. The present sequence is an inflammation is useful for ameliorating the effects of psoriasis, P45161). The method is useful for ameliorating the effects of psoriasis, rothyyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the skin, a hyperneovascular condition such as a neovascular condition of the retina, disease, kidney disease, hyperproliferation of the inside of blood vessels or any other hyperplasia
                                                                                                                                                                                                                                                                                Ameliorating the effects of a disorder, e.g. psoriasis, by administering UV (ultra-violet) treatment (optional) and an antisense nucleic acid that inhibits or reduces growth factor mediated cell proliferation and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 15 BP; 3 A; 4 C; 3 G; 5 T; 0 U; 0 Other;
                                                                                                                                                             (MURD-) MURDOCH CHILDRENS RES INST.
                                                                                                                                                                                                                                                                                                                                                                                      Example 8; Page 88; 201pp; English.
                                                                                21-JUN-2000; 2000WO-AU000693.
                                                                                                                      99US-0140345F.
                                                                                                                                                                                                      Werther GA,
                                                                                                                                                                                                                                           WPI; 2001-041421/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
WO200078341-A1
                                                                                                                                                                                                                                                                                                                                                   inflammation.
                                                                                                                      21-JUN-1999;
                                                                                                                                                                                                      Wraight CJ,
                                      28-DEC-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to a method for the diagnosis of myelodysplasia syndrome (MDS) which enables MDS to be differentiated from leukaemia. The method involves measuring the level of expression of the Dk (Drosophila delta-like, GenBank accession number U15979) gene in a test sample and comparing it with Dlk expression in a normal control sample and/or with a control gene. An increased level of Dlk expression is indicative of MDS. The level of Dlk expression may be assessed using an anti-Dlk antibody, or using a nucleic acid-based method (e.g., quantitative PCR). The invention also relates to an MDS diagnostic kit, and a therapeutic agent containing an anti-Dlk antibody. Sequences ABA02306-ABA02307 represent Dlk PCR primers used in quantitative real-time PCR of Dlk mRNA levels in an exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                Detection of increased expression of D1k gene for diagnosing myelodysplasia syndrome comprises comparison of expression with normal tissue or use of a anti-D1k antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                             Human, Dlk, Drosophila delta-like, myelodysplasia syndrome, MDS,
diagnosis, quantitative real-time PCR primer, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Match 1.7%; Score 14.2; DB 1; Length 21; Local Similarity 84.2%; Pred. No. 3.7e+02; es 16; Conservative 0; Mismatches 3; Indels
                                         Human dlk quantitative real-time PCR primer, SEQ ID NO:4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 21 BP; 4 A; 3 C; 8 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 4; Page 10; 15pp; Japanese.
                                                                                                                                                                                                                                                                 24-MAR-2000; 2000JP-00085153
                                                                                                                                                                                                                                                                                                        24-MAR-2000; 2000JP-00085153
18-FEB-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                               (KIRI ) KIRIN BREWERY KK.
                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-064402/09.
                                                                                                                                                                                                                                                                                                                                                                    (MANO/) MANO H.
                                                                                                                                                                                   JP2001269174-A.
                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                          02-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loca
Matches
```

```
;
0
                                                                                                                                                                                                                                                                                                        Antisense therapy, antiproliferative; antiinflammatory; antipsoriatic; cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid; skin discorder; Insulin-like Growth Factor. I receptor; IGF-1; ptryliasis; IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilatis; growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba; keatosis; neoplasia; scoleroderma; wart; skin cancer; sclerotic disease; hyperneovascular condition; hyperplasia; kidney disease; neoblation of the retina; ss.
                                  Gaps
                                  ;
1.7%; Score 14; DB 1; Length 15;
100.0%; Pred. No. 2.4e+02;
vative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                 IGF-I oligonucleotide #4290.
                                                                  319 ACTGCAGAGAGCT 332
                                                                                                                                                                                   AAF53330 standard; DNA; 15
                                                                                                                                                                                                                                                  (first entry)
                                  14; Conservative
                                                                                                                                                                                                                                                  30-MAR-2001
                                                                                                                                                                                                                   AAF53330;
                                                                                                                                                                   AAF53330/
                                                                                               염
```

259 TAGACAGGAGCACCTTCAG 277

ð

20 TCGACATGACCACCTTCAG 2

AAF53333 standard; DNA; 15 BP

RESULT 317

AAF53333;

IGF-I oligonucleotide #4293. 30-MAR-2001 (first entry)

WO200078341-A1.

Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic; cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid; skin discorder; Insulin-like Growth Factor I receptor; IGF-1; pityriasis; IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris; growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba; keatoosis, neophasia; scleroderma; wart; skin cancer; sclerotic disease; hyperneovascular condition; hyperplasia; kidney disease; neobascular condition; hyperplasia; kidney disease;

Homo sapiens

schu568-1.rng

```
The present invention describes a collection of binding groups for a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-156696/21.
                                                                                                                                                                                                                                                                                                                   Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Loukachov VV,
                                               significance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EP1174518-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    significance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-JAN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABL88799;
                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 320
                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                         ABL88799
ò
                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
0
                                                                                                                                                                                                       skin disorders. The method comprises contacting the skin with an antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1 receptor, IGF binding protein [IGFBF]-2 or IGFBF], which is capable of inhibiting or reducing growth factor mediated cell proliferation, inflammation and/or other disorders. The present sequence is an oligonucleotide which can be used to design the antisense oligonucleotides of the present invention (see AAF45153-F45161). The method is useful for ameliorating the effects of psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis, hopplaaias, scleroderma, warts, benign growths, cancers of the skin, a hyperneovascular condition such as a neovascular condition of the retina, brain or skin, growth factor-mediated malignancies, other sclerotic disease, kidney disease, hyperproliferation of the inside of blood
                                                                                                               Ameliorating the effects of a disorder, e.g. psoriasis, by administering UV (ultra-violet) treatment (optional) and an antisense nucleic acid that inhibits or reduces growth factor mediated cell proliferation and/or
                                                                                                                                                                                                present invention relates to a method for ameliorating the effects of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HIV-1 related binding molecule oligonucleotide sequence SEQ ID NO:43.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    molecule, HIV-1; human immunodeficiency virus type 1; transcriptase; binding group; ss.
                                                                                                                                                                                                                                                                                                                                                                                                              Score 14; DB 1; Length 15;
Pred. No. 2.4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                       Sequence 15 BP; 3 A; 5 C; 3 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (AMST-) AMSTERDAM SUPPORT DIAGNOSTICS BV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Van Gemen B, Goudsmit J;
                                                                    Edmondson SR;
                                                                                                                                                                         Example 8; Page 88; 201pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                    1.7%; Scor
100.0%; Prec
                                                                                                                                                                                                                                                                                                                                                                  vessels or any other hyperplasia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immunodeficiency virus 1.
                                              (MURD-) MURDOCH CHILDRENS RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABL88821 standard; DNA; 18 BP.
21-JUN-2000; 2000WO-AU000693
                       99US-0140345P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-JUL-2000; 2000EP-00202611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-JUL-2000; 2000EP-00202611
                                                                                                                                                                                                                                                                                                                                                                                                                                                             321 TGCAGAGAAGCTGT 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  recadadaderer 2
                                                                                                                                                                                                                                                                                                                                                                                                                                     14; Conservative
                                                                    Werther GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2002-156696/21.
                                                                                            WPI; 2001-041421/05
                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            loukachov W,
                       21-JUN-1999;
                                                                                                                                                    inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EP1174518-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-MAY-2002
                                                                    Wraight CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 319
                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABL88821
d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
ö
                                                                                                                                                                                                                                                                                   The present invention describes a collection of binding groups for a family of nucleic acids comprising members of relative high and relative low significance, where the binding groups are selected to be capable to identify, alone or in combination, essentially all members of the family of nucleic acids of relatively high significance. The collection of binding groups is useful for typing of nucleic acid in a clinical sample, by contacting the nucleic acid with the collection and determining whether one or more binding groups bound to the nucleic acid of the sample comprises at least a part of a member of relatively high significance of a family of nucleic acids. The collection of binding groups is useful for diagnosing the severity of a disease caused by a pathogen containing a member of a family of nucleic acids. ABL88779 to ABL889321 represent oligonucleotide sequences used in the exemplification of the present
Collection of binding groups for determining or typing samples, especially clinical samples, has groups capable to identify essentially all members of the family of nucleic acids of relatively high
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Collection of binding groups for determining or typing samples, especially clinical samples, has groups capable to identify essentially all members of the family of nucleic acids of relatively high
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIV-1 related binding molecule oligonucleotide sequence SEQ ID NO:21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Binding molecule; HIV-1; human immunodeficiency virus type 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.7%; Score 14; DB 1; Length 18; 100.0%; Pred. No. 3.3e+02; tive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 18 BP; 7 A; 3 C; 7 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                reverse transcriptase; binding group; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (AMST-) AMSTERDAM SUPPORT DIAGNOSTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goudsmit
                                                                                                                                                                                                                Disclosure, Page 17; 166pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure, Page 12; 166pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human immunodeficiency virus 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABL88799 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-JUL-2000; 2000EP-00202611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-JUL-2000; 2000EP-00202611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  766 CAGAACTGGAGAAG 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Van Gemen B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAACTGGAGAAG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14; Conservative
```

Length 19;

```
family of nucleic acids comprising members of relative high and relative low significance, where the binding groups are selected to be capable to identify, alone or in combination, essentially all members of the family of nucleic acids of relatively high significance. The collection of binding groups is useful for typing of nucleic acid in a clinical sample, by contacting the nucleic acid with the collection and determining whether one or more binding groups bound to the nucleic acid of the sample. This method is useful for determining whether the sample comprises at least a part of a member of relatively high significance of a family of nucleic acids. The collection of binding groups is useful for disagnosing the severity of a disease caused by a pathogen containing a member of a family of nucleic acids. ABL88779 to ABL89321 represent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a novel isolated molecule comprising bases 2-8 or 13-16 of 2 16 base pair sequences, or comprising a 1731 base pair sequence, all given in the specification or at least 95 % identity with the 1731 bp sequence. The models caid molecule is useful in regulating apoptosis in cells and in drug screening. The method is useful in facilitating the induction of apoptosis in cells, in identifying an agent that can facilitate the induction of apoptosis in cells, and in inhibiting the growth of a cancer. This polymuclecide sequence represents a ribozyme substrate target sequence relating to the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated nucleic acid molecule useful for regulating apoptosis induction in cells, for inhibiting the growth of cancer in subjects, and for drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                    oligonucleotide sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cytostatic, gene therapy; apoptosis; cancer growth inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match 1.7%; Score 14; DB 1; Length 18; Local Similarity 100.0%; Pred. No. 3.3e+02; es 14; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Barber J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 18 BP; 7 A; 2 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ribozyme substrate target sequence SEQ ID No 120.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Robbins J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 3; Page 43; 153pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tritz R, Keily B, Habita C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-MAY-2002; 2002WO-US015198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-MAY-2001; 2001US-0290927P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          766 CAGAACTGGAGAAG 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABT33769 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGAACTGGAGAAG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-MAY-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (IMMU-) IMMUSOL INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-129308/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     drug screening; as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200292840-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-NOV-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABT33769;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 321
ABT33769/c
           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HID SECOND COURSE SECOND COURS
```

ö

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                     Acute lymphoblastic leukaemia, acute nonlymphoblastic leukaemia, chromosomal translocation; rearrangement, abnormality; detection, ALL-1; direct tandem duplication; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New acute lymphocytic leukaemia gene prods. - used for the diagnosis and treatment of leukaemia(s), partic. acute lymphoblastic or nonlymphoblastic leukaemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The ALL-1 gene rearrangement was studied in 3 adult patients with acute myeloid leukaemia and who lacked cytogenetic evidence of 11q23 translocations. Oligonucteotide primers 3.1c and 5.3 (see AAQ75191 and AAQ75192) were used in a first PCR amplification, followed by nested PCR using the primers 6.1 and 3.2c (AAQ75193 and AAQ75194). A single rearranged ALL-1 band was seen for each patient. Each clone begins and ends with a portion of ALL-1 exon 5; the 5'-3' order of ALL-1 exons within each clone was 5-6-2-3-4-5. This novel exon structure indicates that the ALL-1 rearrangement in each patient is the result of direct tandem duplication of a portion of the ALL-1 gene. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                 Gaps
                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.7%; Score 14; DB 1; Length 20;
100.0%; Pred. No. 3.8e+02;
lve 0; Mismatches 0; Indels
                                2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20 BP; 7 A; 3 C; 7 G; 3 T; 0 U; 0 Other;
 Score 14; DB 1; 1
Pred. No. 3.5e+02;
2; Mismatches 2;
                                                                                                                                                                                                                                                                          ALL-1 exon 3 nested PCR primer 3.2c.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 6; Page 58; 207pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.,,
100.0%; Pr
                                                           354 GCCAACCTGTCAGAAGAG 371
                                                                                                                                                                     ВР.
                                                                                         н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYJE-) UNIV JEFFERSON THOMAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAT48516 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93US-00062443.
1.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          94WO-US004496.
                                                                              SYCAACCTGTGACAAGAG
                                                                                                                                                                   AAQ75194 standard; cDNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             677 CACAGATGGATCTG 690
                                                                                                                                                                                                                             (revised)
(first entry)
 Query Match
Best Local Similarity 77.8
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 14; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Croce C, Canaani E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1995-006818/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-APR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-MAY-1993;
                                                                                                                                                                                                                                                                                                                                                                                               WO9426930-A1
                                                                                                                                                                                                                             25-MAR-2003
23-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                             24-NOV-1994,
                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                AAQ75194;
                                                                                         18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N
                                                                                                                                      RESULT 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAT48516
ID AAT4
XX
                                                                                        유
                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

Sequence 19 BP; 2 A; 4 C; 4 G; 7 T; 0 U; 2 Other;

schu568-1.rng

AAT48516;

```
note= "Phosphorothioate backbone"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 3 A; 4 C; 6 G; 7 T; 0 U; 0 Other;
                                                                                                                               (OMNA=) OMSK NAT INFLAMATION INFECTIONS RES INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .5
^trag= b
mod base= OTHER
/note= "Methoxyethyl residues"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
1. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2. .3
/*tag= d
/mod_base= m5c
                                                                                                                                                                                                                                                                                                   Claim 1; Col 7-8; 4pp; Russian.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAD11996 standard; DNA; 20 BP
                                                               90SU-04892388
                                                                                                 90SU-04B9238B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          557 CCAACAGCAGGGAT 570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccaacagcaggar 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /*tag= a
/mod_base=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ๙
                                                                                                                                                                                                   WPI; 1997-019519/02.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
Synthetic.
RU2057811-C1
                                                               17-DEC-1990;
                                                                                                 17-DEC-1990;
                                 10-APR-1996
                                                                                                                                                                 Drokin DA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAD11996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAD11996
음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Detection of ALL-1 gene rearrangement or mutation in solid tumour - using ALL-1-specific probe or primer.
                                                                                                 ALL; acute lymphoblastic leukaemia; acute myeloid leukaemia; AML; primer; probe; PCR; polymerase chain reaction; detection; diagnosis; prognosis; chromosome 11q23; solid tumour; gastric carcinoma; translocation; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AT48513-T48518 are PCR primers used for the isolation of the ALL-1 gene from total CDNA from the human gastric carcinoma cell line Mgc80-3 and subsequent subcloning of the gene into the TA vector (Invitrogen). Where all retrieved sequences could be sequenced and analysed for ALL-1 gene rearrangement sequences could be sequenced and analysed for ALL-1 gene transcribed for ALL-1 gene transcribed for ALL-1 gene is located at chromosome is also responsible for acute lymphoblastic leukaemia (ALL) chromosome 11 band q23, in leukaemias with translocations involving 11q23, the ALL-1 gene fuses with one of many different genes, or (in the case of AML) self fusion resulting in a partially duplicated gene and a transcript with an in-frame fusion of either exon 6 or exon 8 with exon 2. The primers (which may also be used as probes) are useful for the diagnosis and prognosis of human solid tumours and leukaemias, as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Probe; identification; dengue 1 fever; virus; detection; flavivirus; ss.
                                                                 Human ALL-1 gene exon 3-derived primer, used for leukaemia diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 14; DB 1; Length 20;
Pred. No. 3.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 7 A; 3 C; 7 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oligonucleotide probe for dengue 1 fever virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
1.7%; Score 14; DB
Best Local Similarity 100.0%; Pred. No. 3.8
Matches 14; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; Col 13; 10pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAT45308 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                        (UYJE-) UNIV JEFFERSON THOMAS
                                                                                                                                                                                                                                                                                                                          95US-00446926.
                                                                                                                                                                                                                                                                                        95US-00446926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   677 CACAGATGGATCTG 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACAGATGGATCTG 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (revised)
(first entry)
                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1996-484992/48.
                                                                                                                                                          neoplasia; ss
                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                          18-MAY-1995;
                                                                                                                                                                                                                                                                                                                          18-MAY-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-MAR-2003
19-AUG-1997
                                     08-APR-1997
                                                                                                                                                                                                                          US5567586-A.
                                                                                                                                                                                                                                                       22-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
```

Croce CM;

AAT45308;

RESULT 324 AAT45308/c

à D

```
Set of 11 oligo-nucleotide probes for identification of flaviviruses -comprising probes specific for tick, Japanese, Murray Valley and San Luis encephalitis, yellow fever, dengue, and western nile viruses.
                                                                                                                                                                                                                                                                                                       The present sequence, a probe for the identification of dengue 1 fever virus, is a member of a probe set for the detection of flaviviruses. The probe set gives increased accuracy in identification of flaviviruses because of the use of highly specific probes. Use of the probe set for the identification of flaviviruses involved the synthesis of decayoligonucleotides, study of their specificity, immobilisation of RNA on nitrocellulose filters, labelling with 32P and hybridisation. After hybridisation the radioactivity was measured with a scintillation counter, and signals 2 to 3 fold higher than the background considered positive. The probe set was used to test 50 strains of 16 types of flavivirus. (Updated on 25 mARR-2003 to correct PF field.) (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human, PTP1B; protein phosphatase 1B inhibitor; antisense; gene therapy;
infection; inflammation; tumour; prophylaxis; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
1.7%; Score 14; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 3.8e+02;
Matches 14; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human PTP1B antisense oligonucleotide (ISIS# 107805).
```

.; 0

```
Compound for inhibiting the expression of protein phosphatase 1B (PTP1B) and for treating diabetes, cancer, or obesity, comprises an antisense oligonucleotide targeted to nucleic acid encoding PTP1B.
                                                                                                                                                                                                                                                 Claim 3; Page 23; 133pp; English
                                                                  18-JAN-2000; 2000US-00487368.
31-JUL-2000; 2000US-00629644.
                                                14-MAY-2001; 2001US-00854883.
                                                                                                                                                                   Cowsert LM, Wyatt J,
                                                                                                                                                                                      WPI; 2002-462914/49.
          US2002055479-A1.
                            09-MAY-2002.
                                                                                                                                     (BUTL/)
                                                                                                COMS/)
                                                                                                         WYAT/)
FREI/)
                                                                                                                             (/INOM
ö
                                                                                                                                                                                                                                                                                                                                                       The invention is directed to antisense compounds, particularly oligonucleotides which are targetted to a DNA encoding protein phosphatase 1B (PPTB) to modulate its expression. The antisense compounds are useful for diagnosis, prophylaxis and treatment of diseases associated with the expression of PTP1B, to prevent or delay infection, inflammation and tumour formation and as a research reagent. The PTP1B DNA is useful in gene therapy. The present sequence is an antisense oligonucleotide with a phosphorothicate backbone. This oligo is targetted to human PTP1B to inhibit its expression
                                                                                                                                                                                                                                                                                                 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                               New antisense compounds capable of modulating expression of human
phosphatase 1B, useful for diagnosis, prophylaxis and treatment of
diseases associated with expression of protein phosphatase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.7%; Score 14; DB 1; Length 20; 100.0%; Pred. No. 3.8e+02; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 4 A; 7 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                         'note= "Methoxyethyl residues"
                                                                                                                                                                                                                                                                                                                                     Claim 1; Col 43-44; 71pp; English.
                                                                                               base= OTHER
        mod_base= m5c
                                                       /*tag= g
/mod_base= m5c
                                                                                                                                     /mod_base= m5c
                                        /mod_base= m5c
                                                                                                                                                                                                18-JAN-2000; 2000US-00487368.
                                                                                                                                                                                                                   18-JAN-2000; 2000US-00487368.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCGAGGTGCCCA 711
                           *tag= f
                                                                                        U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cricaagerecca 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 100.
es 14; Conservative
                                                                             16. .20
/*tag=
                                                                                                                              *tag=
                                                                                                                                                                                                                                       (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                         Cowsert LM, Wyatt J;
                                                                                                /mod
                                                                                                                                                                                                                                                                            WPI; 2001-432181/46.
                  modified_base
                                              modified_base
                                                                           modified base
                                                                                                                  modified base
                                                                                                                                                         US6261840-B1
                                                                                                                                                                           17-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABK85071/C
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
```

Freier SM, Monia BP, Butler MM, Mckay R;

WYATT J. FREIER S M. MONIA B P. BUTLER M M. COWSERT L M.

MCKAY R.

```
The invention relates to a compound of 8-50 nucleobases in length targeted to a nucleic acid encoding protein phosphatase 1B (PTP1B), where the compound specifically hybridises with and inhibits the expression of PTP1B (e.g. an anticense oligonucleotide). Also included are (1) are PTP1B (e.g. an anticense oligonucleotide). Also included are (1) are PTP1B (e.g. an anticense oligonucleotide). Also included are (1) are propound of 8-50 nucleobase portion of an active site on a nucleic acid encoding propound or supported of propound in cells or tissues with the compound; treating a propound in animal cells or tissues with the compound; treating animal having or suspected of having a disease or condition associated with PTP1B in an animal comprising administering the compound; (5) creventing or delaying the onset of a disease or condition associated with an animal comprising administering the compound; (6) preventing or delaying the onset of an increase in blood glucose levels in an animal comprising administering the compound; and (6) prevent or delay the onset of a disease or condition associated with PTP1B, such as type 2 diabetes, obesity, cancer (especially ovarian cancer, chronic myeloid leukaemia and hyperproliferative diseases in an animal having or suspected of having the disease or condition, and for decreasing blood sugar levels in an animal. The compound is also used in diagnostics, therapeutics, prophylaxis, and in research reagents and three tragetting human PTP1B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.7%; Score 14; DB 1; Length 20; 100.0%; Pred. No. 3.88+02; ive 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human PTP1B mRNA level inhibition antisense DNA #37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20 BP; 4 A; 7 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                698 CTTCGAGGTGCCCA 711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABK37240 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 100...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17 cricaaggracca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABK37240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 327
ABK37240/c
1D ABK372.
XX
AC ABK372
XX
XX
DT 08-MAY
XX
DB Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

Antisense; protein phosphatase 1B; PTP1B; ss; probe; human; type 2 diabetes; obesity; ovarian cancer; chronic myeloid leukaemia; hyperproliferative disease; antidiabetic; anorectic; cytostatic; blood glucose; gene therapy.

Homo sapiens

Human PTP1B antisense oligonucleotide ISIS 107805.

(first entry)

13-AUG-2002

ABK85071;

ABK85071 standard; DNA; 20 BP

04-APR-2001; 2001WO-US010958.

WO200179548-A2

25-OCT-2001

```
Novel antisense compound useful for treating type 2 diabetes, cancer and obesity, is targeted to nucleic acid encoding human protein phosphatase 1B, and hybridizes and inhibits PTP1B expression.
     Human, mouse, rat, protein tyrosine phosphatase 1B, PTP1B, ss, adipose, liver; kidney, metabolic disease, type 2 diabetes; obesity; cancer; hyperproliferative condition, blood serum; blood plasma; antidiabetic; blood glucose level; cytostatic; anorectic; antisense gene therapy; PTP1B mRNA level inhibition.
                                                                                                                                                                                                                                                                                                     Claim 3; Page 68; 142pp; English.
                                                                                                                                          30-JUL-2001; 2001WO-US023874.
                                                                                                                                                                  31-JUL-2000; 2000US-00629644
                                                                                                                                                                                         (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                              Wyatt J,
                                                                                                                                                                                                                                   WPI; 2002-180079/23.
                                                                                                 WO200210378-A2
                                                                             Homo sapiens
                                                                                                                      07-FEB-2002
                                                                                                                                                                                                              Cowsert LM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nvention
```

Mckay

Butler MM,

Monia BP,

Freier SM,

ö The invention relates to a compound targeted to a nucleic acid molecule encoding protein phosphatase 1B (PTP1B), which specifically hybridises with and inhibits the expression of PTP1B. The compounds of the invention are useful for inhibiting the expression of PTP1B. The compounds of the invention adjoes cells or tissues and for treating an animal, preferably human, having a disease or condition associated with PTP1B, including metabolic diseases or conditions such as cancer. The sequences are also useful for decreasing blood (serum or plasma) glucose levels in an animal e.g. a diabetic human or rodent, for preventing or delaying the onset of a disease or condition associated with PTP1B, and for preventing or delaying the onset of an increase in blood glucose levels. This sequence represents a PTP1B mRNA level inhibition antisense oligonucleotide of the Sequence 20 BP; 4 A; 7 C; 6 G; 3 T; 0 U; 0 Other;

0; Gaps 1.7%; Score 14; DB 1; Length 20; 100.0%; Pred. No. 3.8e+02; ive 0; Mismatches 0; Indels Query Match Best Local Similarity 100. Matches 14; Conservative

ò

ABI94254 standard; DNA; 20 BP. ABI94254; RESULT 328
AB194254
XX AB19425
XX
XX AB19425
DT 16-FEBXX
XX
XX Human;
XW Human;
XX Synthet

Capture oligonucleptide Zip ID#1341 oligo #9.

(first entry)

16-FEB-2002

Human, K-ras, PCR primer, probe, capture probe, mutation detection, ligase detection reaction, LDR, p53, BRCA1, BRCA2, infectious disease, infection, 21 hydroxylase deficiency, Turner Syndrome, obesity, cancer, oncogene, tumour suppressor; human papillomavirus, forenaic, environmental monitoring, food industry, feed industry, ss.

Synthetic

The present invention describes a method (M1) for designing capture oligonucleotide probes (I) for use on a support to which complementary coligonucleotide probes (II) will hybridise with little mismatch, where coligonucleotide probes (II) will hybridise with little mismatch, where coligonucleotide probes (II) will hybridise with little mismatch, where coligonucleotide and parasitions and method is useful for detecting infectious diseases caused by bacterial infectious agents consistents and monocytogenes and Haemophilus influenza, fungal infectious agents e.g. Cryptococcus neoformans, Candida albicans and Aspergillus fumigautus, viruses e.g. T-cell lymphocytotrophis cirus, complication and parasitic infectious agents selected from onchoverva volvulus, Entamoeba histolytica and Dracunculus medinesis. The method is also useful for detecting genetic diseases such can solly an explication, replication, recombination or repair, the concert is specifically associated with a gene selected from BRCAH gene, cancer is repecifically associated with a gene selected from BRCAH gene, cancer is specifically associated with a gene selected from BRCAH gene, cancer is selecting comprises scanning (using e.g. a scanning clectron microscope and infrared microscope) the support at the particular sites and identifying if ligation of the oligonucleotide probesent cor absence of the target nucleotide sequences. BENDESOTA to ABI97346 represent linvention ö to which Gaps . 0 Designing capture oligonuclectide probes for use on a support complementary oligonuclectides hybridize with little mismatch. 1.7%; Score 14; DB 1; Length 20; 00.0%; Pred. No. 3.8e+02; ve 0; Mismatches 0; Indels Kliman R; Sequence 20 BP; 3 A; 6 C; 6 G; 5 T; 0 U; 0 Other; Favis R, Example 5; Fig 29; 300pp; English Gerry NP, (CORR) CORNELL RES FOUND INC 14-APR-2000; 2000US-0197271P. 100.0%; 340 AACTIGGIGCCAGC 353 Query Match 1.7 Best Local Similarity 100. Matches 14; Conservative Barany F, Zirvi M, WPI; 2002-034366/04 #X4X#X#X#X#X#X####X#X###X#X à g

AAL62120 standard; DNA; 20 BP AAL62120;

(first entry) 22-SEP-2003 Human HCDR3 amplifying forward PCR primer, Exfor3.

Micro-scaffold; immunoglobulin; complementarity determining region; CDR; human; PCR; primer; ss

WO2003050531-A2

19-JUN-2003

11-DEC-2002; 2002WO-BE000189 11-DEC-2001; 2001EP-00870274

```
schu568-1.rng
```

alpha.

The invention relates to antisense compounds targeted to nucleic acids encoding protein kinase A regulatory subunit RII alpha. The antisense compounds are useful for modulating the expression of protein kinase A (PRA) regulatory subunit RII alpha and for treating a disease or condition associated with expression of PRA regulatory subunit RII alpha. The compounds are also useful as research reagents and kits, or for diagnostics, therapeutics and prophylaxis, e.g. to prevent or delay inflammation or tumour formation. The present sequence inhibitory oligonucleotide

ö Gaps .. 1.7%; Score 14; DB 1; Length 20; 100.0%; Pred. No. 3.8e+02; ive 0; Mismatches 0; Indels Local Similarity Query Match

300 GGGCCCTGCATGG 313

à d

14 GGGCCCTGCATGG 1

AAT39785/

AAT39785;

ö

Gaps

;

Query Match

1.7%; Score 14; DB 1; Length 20;
Best Local Similarity 77.8%; Pred. No. 3.8e+02;
Matches 14; Conservative 2; Mismatches 2; Indels

203 CCTGGGTTCCCAGCCCTC 220

18

ACD44777 standard; DNA; 20 BP

Sequence 20 BP; 2 A; 6 C; 9 G; 1 T; 0 U; 2 Other;

Amyloid precursor

Synthetic.

10-OCT-1996.

95US-00416257. 04-APR-1995;

(ELIL) LILLY & CO ELI

Little

SP;

WPI; 1996-464694/46

New isolated human amyloid precursor protein protease - used to develop prods. for the treatment or diagnosis of associated conditions, esp. Alzheimer's disease.

Disclosure; Page 25; 55pp; English.

PCR primers (AAT39784 and AAT39785) were used to amplify cDNA derived from human superior frontal gyrus tissue; the cDNA had been produced from mRNA isolated using probes based on known serine proteases. The PCR product was used to isolate a full-length clone (AAT39783) coding for human amyloid precursor protein protease (AAW05383) from a human lung cDNA lambda gt10 library

Gaps . 0 Query Match 1.7%; Score 14; DB 1; Length 21; Best Local Similarity 87.5%; Pred. No. 4.1e+02; Matches 14; Conservative 1; Mismatches 1; Indels

New antisense compounds, useful for modulating the expression of protein kinase A (PKA) regulatory subunit RII alpha, and for treating a disease or condition associated with expression of PKA regulatory subunit RII

.; 0

Sequence 20 BP; 5 A; 8 C; 6 G; 1 T; 0 U; 0 Other; Claim 15; Col 45-46; 35pp; English. The invention relates to an isolated polypeptide micro-scaffold displaying immunoglobulin complementarity determining region (CDR)-2 or CDR3 polypeptide sequences, comprising a CDR2 or CDR3 polypeptide sequence interconnecting fragments of the adjacent framework polypeptide sequences, which are arranged to form two anti-parallel beta-strands. The polypeptide micro-scaffold and the nucleotide sequences are useful for searching, selecting and screening for immunoglobulin CDR2 or CDR3 polypeptide sequences. The present sequence is a PCR primer used in the amplification of human HCDR3 DNA New isolated polypeptide micro-scaffold displaying immunoglobulin complementarity determining region (CDR) 2 or CDR3 polypeptide sequences, useful for searching, selecting and screening for immunoglobulin CDR2 or CDR3 polypeptide sequences. <u>ы</u>

Beirnaert

Lauwereys M,

Boutonnet N,

Jasters I, Pletinckx J,

WPI; 2003-577302/54.

ALGONOMICS NV ABLYNX NV.

Example 2; Page 37; 90pp; English.

Matches 14; Conservative

RESULT 331

AAT39785 standard; DNA; 21

BP.

31-DEC-1996

Amyloid precursor protease protease PCR primer.

Amyloid precursor protein protease, Alzheimer's disease, diagnosis, therapy, primer, polymerase chain reaction, PCR, ss.

WO9631122-A1.

96WO-US004294. 02-APR-1996;

PKA regulatory subunit RII alpha inhibitory oligonucleotide ISIS102902.

(first entry)

09-SEP-2003

ACD44777;

Human, ss; antisense therapy, infection; inflammation; tumour; protein kinase A regulatory subunit RII alpha.

Homo sapiens.

Synthetic

US6524854-B1 25-FEB-2003.

RESULT 330

XX

AC ACD4477/C

AC ACD4477

AC ACD447

AC ACD44

11-SEP-2001; 2001US-00954560 11-SEP-2001; 2001US-00954560

(ISIS-) ISIS PHARM INC

Cowsert LM;

Monia BP,

WPI; 2003-511923/48.

Johnstone EM, Dixon EP,

Sequence 21 BP; 5 A; 6 C; 5 G; 4 T; 0 U; 1 Other;

30

AAD00964

à

```
The present invention provides a method of diagnosing a vascular disease in an individual, involving determining the sequence at various polymorphic sites within the human thrombospondin 1 and thrombospondin 4 genes. The sequences at a number of polymorphic sites are also provided in the specification. In particular, the method can be used in the diagnosis of atherosclerosis, myocardial infarction, coronary heart disease, stroke, peripheral vascular diseases, whomse thromboembolism and pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also useful in forensics, paternity testing, genetic analysis and phenotype correlations to diseases. The present sequence is an example of one of
                                                                                                                                                                                                                    Human, variant thrombospondin 1; variant thrombospondin 4; SNP; polymorphism; vascular disease; coronary artery disease; forensics; myocardial infarction; atherosclerosis; stroke; venous thromboembolism; pulmonary embolism; paternity test; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nucleic acids comprising single nuclectide polymorphisms, useful in applications such as forensics, paternity testing, medicine, genetic analysis and phenotype correlations to diseases such as diabetes and atherosclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= a
/standard_name= "single nucleotide polymorphism"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 21 BP; 5 A; 9 C; 5 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                  Human gene single nucleotide polymorphism #470.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the human gene SNPS shown in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (WHED ) WHITEHEAD INST BIOMEDICAL RES. (MILL-) MILLENNIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ireland JS,
                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
replace(11,T)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example; Page 81; 242pp; English.
                                              AAF95709 standard; DNA; 21 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-SEP-2000; 2000WO-US024503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0153357P.
2000US-0220947P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-AUG-2000; 2000US-0225724P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     825 GGTGCTGAAGCTGG 838
                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.0
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20 gerécreadecres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gargill M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-226749/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200118250-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-SEP-1999;
26-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                      06-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lander ES,
                                                                                                                                                                                                                                                                                                                                                                                              Key
Variation
                                                                                            AAF95709
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence is a primer PAD4.5 which is used to sequence Arabidopsis thaliana PAD4 and pad4-1 alleles and corresponds to positions B1938 ag73 of Arabidopsis genomic clone pAtGPAD4. PAD4 gene is located on Arabidopsis chromosome 3 and encodes a protein which plays an important role in disease resistance in plants. The protein has positive regulatory effect on phytoalexin levels and PR-1 (pathogenesis-related protein) effect on phytoalexin levels and PR-1 (pathogenesis-related protein). BGL2 (beta-glucanase) or ASA1 (anthranilate synthase) crequired upstream from salicylic acid in the signal transduction pathway leading from infection to activation of defence responses. It is used to produce transgenic plants which have enhanced resistance to diseases especially Phytophthora, Peronospora or Pseudomonas. Such transgenic plants are useful agronomically e.g. to improve crop quality or yield
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                    PAD4; pAtgPAD4 clone; disease resistance; phytoalexin; PR-1; PR-5; pathogenesis-related protein; BGL2; beta-glucanase; ASA1; anthranilate synthase; defence response; salicylic acid; SA; signal transduction; transgenic plant; pathogen; bacteria; fungi; nemarcode; Phytophthora; Peronospora; Pseudomonas; plant; agronomy; crop; chromosome 3; pad4-1 allele; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New PAD4 polypeptide from Arabidopsis thaliana, useful to enhance plant resistance to diseases due to pathogens such as Phytophthora e.g. to improve crop quality or yields.
                                                                                                                                                                                                                                                                                                                             Primer PAD4.5 to sequence Arabidopsis thaliana PAD4 and pad4-1 alleles.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ,
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
1.7%; Score 14; DB 1; Length 21;
Best Local Similarity 100.0%; Pred. No. 4.1e+02;
Matches 14; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 21 BP; 7 A; 7 C; 4 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Feys BJF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (UYMA-) UNIV MARYLAND BIOTECHNOLOGY INST.
(PLAN-) PLANT BIOSCIENCE LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 147; 181pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tootle T,
                                                                                                                                                                                         BP.
                             661 TCATGCAGCTGAAGCT 676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US026106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-00190733
                                                                      17 TCATGCTGCTGMAGCT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 707 GCCCATAGCCAAAT 720
                                                                                                                                                                                         AAD00964 standard; DNA; 21
                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Glazebrook J, Jirage D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-387805/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200029595-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-NOV-1999;
                                                                                                                                                                                                                                                                                   21-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAY-2000
                                                                                                                                                                                                                                       AAD00964;
                                                                                                                                             RESULT 332
```

Mccarthy JJ;

Bolk S, Daley GQ,

```
ő
                            Gaps
                             ö
7%; Score 14; DB 1; Length 21; 0.0%; Pred. No. 4.1e+02; 0; Mismatches 0; Indels
                                                                                                                                                  ABS66944 standard; DNA; 21 BP
                                                                                                                        RESULT 334
ABS66944
ID ABS669
XX
```

GCCCATAGCCAAAT

ò

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a multidrug resistance-associated protein 1 (MRP 1) polymudleotide is useful in an in vitro method for identifying a single nucleotide polymorphism and for identifying and obtaining a pro-drug or drug capable of modulating the activity of a molecular variant of MRP-1 or for identifying and obtaining an inhibitor of the activity of a molecular variant of MRP-1. The sequences are useful for diagnosing a disorder related to the presence of a molecular variant of MRP-1 or susceptibility to such a disorder, where the disorder is cancer (particularly renal cancer) or a disease related to multidrug resistance. This sequence represents a human MRP-1 polymorphic DNA region
                                                                                                                                                                                                                                                                                                                                                                                                            useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer;
                                                                                                                                                                                                                                                                                                                                                                                                        Novel multidrug resistance-associated protein 1 polynucleotide usef diagnosis and treatment of cancer and multidrug resistance related diseases, and for identifying single nucleotide polymorphisms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .,
                                                                                             Human, multidrug resistance-associated protein 1; MRP-1; ss; renal cancer; cytostatic; single nucleotide polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human, multidrug resistance-associated protein 1, MRP-1, ss, renal cancer, cytostatic, single nucleotide polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
1.7%; Score 14; DB 1; Length 21;
Best Local Similarity 100.0%; Pred. No. 4.1e+02;
Matches 14; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 21 BP; 8 A; 11 C; 1 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                          Brinkmann U, Hoffmeyer S, Mornhinweg E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human MRP-1 polymorphic DNA region #210.
                                                               Human MRP-1 polymorphic DNA region #209
                                                                                                                                                                                                                                                                                                             (EPID-) EPIDAUROS BIOTECHNOLOGIES AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 80; 198pp; English
                                                                                                                                                                                                                                             25-JAN-2002; 2002WO-EP000796
                                                                                                                                                                                                                                                                            26-JAN-2001; 2001EP-00101651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-JAN-2002; 2002WO-EP000796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       395 CACACACACCCTGC 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABS66945 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACACACACCCTGC 21
                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                           WPI; 2002-657475/70.
                                                                                                                                                                               WO200259142-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200259142-A2
                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-NOV-2002
                                29-NOV-2002
                                                                                                                                                                                                              01-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABS66945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
```

```
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a multidrug resistance-associated protein 1 (WRP-1) polynucleotide. The polynucleotide is useful in an in vitro method for identifying a single nucleotide polymorphism and for identifying and obtaining a pro-drug or drug capable of modulating the activity of a molecular variant of MRP-1 or for identifying and obtaining an inhibitor of the activity of a molecular variant of MRP-1. The sequences are useful for diagnosing a disorder related to the presence of a molecular variant of MRP-1 or susceptibility to such a disorder, where the disorder is cancer (particularly renal cancer) or a disease related to multidrug resistance. This sequence represents a human MRP-1 polymorphic DNA region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer
p450,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New use of irinotecan for preparation of compositions for treating in subject having genome with variant allele comprising cytochrome subfamily IIIA, polypeptide 5 polynucleotide, termed CYP3A5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cancer; CYP3A5; irinotecan; pharmaceutical; malignant glioma; cytochrome p450; subfamily IIIA; nifedipine oxidase; polypeptide cytostatic; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cancer based on CYP3A5 related oligonucleotide SEQ ID NO:169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.7%; Score 14; DB 1; Length 21;
100.0%; Pred. No. 4.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 21 BP; 1 A; 1 C; 11 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Prec. ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (EPID-) EPIDAUROS BIOTECHNOLOGIE AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 37; 86pp; English
                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 80; 198pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-JUL-2002; 2002WO-EP008219.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JUL-2001; 2001EP-00117608.
24-MAY-2002; 2002EP-00011710.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      395 CACACACACCCTGC 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACF62340 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14 CACACACACCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-268144/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kerb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003013534-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-FEB-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Heinrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACF62340;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 336
ACF62340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY THE STATE OF TH
```

Novel multidrug resistance-associated protein 1 polynucleotide useful for diagnosis and treatment of cancer and multidrug resistance related diseases, and for identifying single nucleotide polymorphisms.

Ē

Mornhinweg

Hoffmeyer S,

Brinkmann U,

WPI; 2002-657475/70.

(EPID-) EPIDAUROS BIOTECHNOLOGIES AG.

26-JAN-2001; 2001EP-00101651

```
The present invention describes the use of irinotecan (I) or its derivative for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject having a genome with a variant allele which comprises a cytochrome p450, subfamily IIIA (nifedipine oxidase), polypeptide S (CYP3AS) polynuclostie (II) (I) and (II) have cytostatic activity. The therapeutic applications of (I) is improved, since it is possible to individually treat a subject with an appropriate derivative of (I). Therefore, undesirable, harmful or toxic effects are efficiently avoided. Unnecessary and potentially harmful treatment of those subjects who do not respond to the treatment with substances (nonresponders), as well as the development of drug resistances due to suboptimal daria dosing can be avoided. ACF62200 to ACF62251 and ABM34912 to ABM35013 represent sequences used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 21 BP; 8 A; 11 C; 1 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      exemplification of the present invention
```

ô Gaps .; 0 1.7%; Score 14; DB 1; Length 21; 100.0%; Pred. No. 4.1e+02; tive 0; Mismatches 0; Indels Query Match
Best Local Similarity 100.
Matches 14; Conservative Matches

395 CACACACACCCTGC 408

à

cacacacacarde 21

Cancer based on CYP3A5 related oligonucleotide SEQ ID NO:170.

Cancer; CYP3A5; irinotecan; pharmaceutical; malignant glioma; cytochrome p450; subfamily IIIA; nifedipine oxidase; polypeptide 5; cytostatic; PCR primer; ss.

(EPID-) EPIDAUROS BIOTECHNOLOGIE AG.

New use of irinotecan for preparation of compositions for treating cancer in subject having genome with variant allele comprising cytochrome p450, subfamily IIIA, polypeptide 5 polynucleotide, termed CYP3A5.

Disclosure; Page 37; 86pp; English

The present invention describes the use of irinotecan (I) or its derivative for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject having a genome with a variant allele which comprises a cytochrome p450, subfamily IIIA (nifedipline oxidase), polypeptide 5 (CYP3A5) polymucleotide (II). (I) and (II) have cytostatic activity. The therapeutic applications of (I) is improved, the contract of the contra RESULT 337

ACF62341 standard, DNA; 21 BP.

XX
ACF62341;
XX
O8-OCT-2003 (first entry)
XX
Cancer, CYP3A5; irinotecan; pharm cytochtaric, PCR primer; ss.

XX
Cancer, CYP3A5; irinotecan; pharm cytochtaric, PCR primer; ss.

XX
Synthetic.
XX
Synthetic.
XX
Synthetic.
XX
Synthetic.
XX
Synthetic.
XX
C3-JUL-2002; 2002MO-EP008219.
XX
C3-JUL-2002; 2002MP-00117608.
PR
C3-JUL-2002; 2002BP-0011710.
XX
PR
C3-JUL-2001; 2001BP-0011710.
XX
PPI New use of irinotecan for prepar Prim subfamily IIIA, polypeptide 5 por Cancer, or malignant gloma in a coridans or cancer, or malignant gloma in a coridase), polypeptide 5 (CYP3A5)
C Cancer, or malignant gloma in a coridase), polypeptide 5 (CYP3A5)
C Cytochaff a carivity. The therape

ö dosage and/or an appropriate derivative of (I). Therefore, undesirable, harmful or toxic effects are efficiently avoided. Unnecessary and potentially harmful treatment of those subjects who do not respond to the treatment with substances (nonresponders), as well as the development of drug resistances due to suboptimal drug dosing can be avoided. ACF62200 to ACF62751 and ABM34912 to ABM35013 represent sequences used in the exemplification of the present invention irinotecan; colorectal cancer; cervical cancer; gastric cancer; lung cancer; ovarian cancer; pancreatic cancer; malignant glioma; variant allele; multidrug resistance protein 1; MRP1; cytostatic; gene; Use of irinotecan or its derivative for preparation of a pharmaceutical composition for treating cancer in a subject having a genome with a variant allele comprising a multidrug resistance protein 1 Gaps · 0 1.7%; Score 14; DB 1; Length 21; 100.0%; Pred. No. 4.1e+02; tive 0; Mismatches 0; Indels MRP1 based cancer related nucleic acid SEQ ID NO:170. Sequence 21 BP; 1 A; 1 C; 11 G; 8 T; 0 U; 0 Other; (EPID-) EPIDAUROS BIOTECHNOLOGIE AG. ADB21012 standard; DNA; 21 BP 23-JUL-2002; 2002WO-EP008200. 23-JUL-2001; 2001EP-00117608. 24-MAY-2002; 2002EP-00011710. 395 CACACACACCCTGC 408 14 cacacacacacaca (first entry) Query Match
Best Local Similarity 100.0
Matches 14; Conservative WPI; 2003-354397/33. WO2003013533-A2. polynucleotide 20-NOV-2003 20-FEB-2003 Heinrich G, ADB21012; RESULT 338 ADB21012 88888888 à g

1 7% Score 14 DB 1: Length 21: Sequence 21 BP; 1 A; 1 C; 11 G; 8 T; 0 U; 0 Other; Charty Match

The present invention describes a method for the use of irinotecan (I) or its derivative for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject having a genome with a variant allele which comprises a multidrug resistance protein I (MRP1) golynucleotide (II). (I) has cytostatic activity. (I) or its derivative can be used for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject, where the subject is a human (preferably African or Asian) or a mouse. The present sequence represents a sequence which is used in the exemplification of the present invention.

Claim 8; Page 46; 100pp; English.

```
ô
                               ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention describes a method for the use of irinotecan (I) or its derivative for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject having a genome with a variant allele which comprises a multidrug resistance protein 1 (MRP1) polynucleotide (II). (I) has cytostatic activity. (I) or its derivative can be used for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject, where the subject is a human (preferably African or Asian) or a mouse. The present sequence represents a sequence which is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                irinotecan; colorectal cancer; cervical cancer; gastric cancer;
lung cancer; ovarian cancer; pancreatic cancer; malignant glioma;
variant allele; multidrug resistance protein 1; MRP1; cytostatic; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Use of irinotecan or its derivative for preparation of a pharmaceutical composition for treating cancer in a subject having a genome with a variant allele comprising a multidrug resistance protein 1
                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.7%; Score 14; DB 1; Length 21;
100.0%; Pred. No. 4.1e+02;
tive 0; Mismatches 0; Indels
                               Indels
                                                                                                                                                                                                                                                                                  MRP1 based cancer related nucleic acid SEQ ID NO:169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 21 BP; 8 A; 11 C; 1 G; 1 T; 0 U; 0 Other;
                               ô
               4.le+02;
                               Mismatches
               Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (EPID-) EPIDAUROS BIOTECHNOLOGIE AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 8; Page 46; 100pp; English.
100.08; Pre-
                                                                                                                                                                                 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-JUL-2002; 2002WO-EP008200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-JUL-2001; 2001EP-00117608
24-MAY-2002; 2002EP-00011710
                                                                                                                                                                                 ADB21011 standard; DNA; 21
                                                                                                                                                                                                                                                    (first entry)
                                                                                             14 CACACACACCCTGC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14; Conservative
                                 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Heinrich G, Kerb R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-354397/33.
            Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003013533-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polynucleotide,
                                                                                                                                                                                                                                                                                                                                                                                                     Unidentified
                                                                                                                                                                                                                                                  20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-FEB-2003
                                                                                                                                                                                                                  ADB21011;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                 Matches
```

Use of irinotecan to treat cancer patient by determining if patient has variant alleles of UGTIA1 gene, administering increased/decreased amounts of irinotecan based on increased/decreased levels of UGTIA1 gene product.

Disclosure; Page 49; 107pp; English.

(EPID-) EPIDAUROS BIOTECHNOLOGIE AG.

WPI; 2003-289896/28.

Heinrich G,

23-JUL-2002; 2002WO-EP008217. 23-JUL-2001; 2001EP-00117608. 24-MAY-2002; 2002EP-00011710.

WO2003013536-A2.

20-FEB-2003,

ss; irinotecan; cancer; UGTIA1; cytostatic; topoisomerase I inhibitor; colorectal cancer; cervical cancer; gastric cancer; lung cancer; ovarian cancer; pancreatic cancer; malignant glloma; uridine diphosphate glycosyltransferasel member A1.

Human UGT1A1 variant allele sequence fragment SEQ ID NO:142.

(first entry)

04-DEC-2003

ADB88101;

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to the novel use of irinotecan to treat a patient suffering from cancer. This involves determining if the patient has one or more variant alleles of the UGTAI gene, and if the patient has one or more of such variant alleles, irinotecan is administered in an increased or decreased amount in comparison to the amount that is administered or departed to the patient's alleles in the UGTAI gene. The invention has cytostatic activity. A composition of the invention acts as a topoisomerase I inhibitor. The method is useful for treating a patient, an animal e.g. mouse or a human, preferably African or Assan, suffering from cancer such as colorectal, cervical, gastric cancer, lung, ovarian, pancreatic cancer or malignant glioma. The present sequence is udes in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ss; irinotecan; cancer; UGT1A1; cytostatic; topoisomerase I inhibitor; colorectal cancer; cervical cancer; gastric cancer; lung cancer; ovarian cancer; pancreatic cancer; malignant glioma; uridine diphosphate glycosyltransferasel member A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human UGT1A1 variant allele sequence fragment SEQ ID NO:141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.7%; Score 14; DB 1; Length 21; 00.0%; Pred. No. 4.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 21 BP; 1 A; 1 C; 11 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.0%; Fred. No. 4.1
Matches 14; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADB88100 standard; DNA; 21 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                395 CACACACACCCTGC 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14 CACACACACCTGC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADB88100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADB88100
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MAKAKAKAKAKA
MAKAKAKAKA
MAKAKAKA
```

ADB88101 standard; DNA; 21 BP

RESULT 340

ADB88101/ ID ADB8

CACACACACCCTGC 408

395

8

21

CACACACACCTGC

```
The invention relates to the novel use of irinotecan or its derivative cor the preparation of pharmaceutical compositions for treating colorectal gatric, lung, ovarian or pancreatic cancer, or malignant glioma in subject having a genome with a variant allele which comprises a multidiang resistance 1 (MDR1) polymuclectide. A composition of the invention has cytostatic activity. The invention is useful for the preparation of pharmaceutical compositions for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject (preferably human, more preferably African or Asian) or a mouse. The present sequence is used in the exemplification of the
                                                                                                                                                        New use of irinotecan for preparation of pharmaceutical compositions for treating cancer in subject having genome with variant allele comprising multidrug resistance 1 polynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       irinotecan; colorectal cancer; cervical cancer; gastric cancer; lung cancer; ovarian cancer; pancreatic cancer; malignant glioma; multidrug resistance 1; MDR1; cytostatic; human; ds; Cyp3A5; MRP1; MDR1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New use of irinotecan for preparation of pharmaceutical compositions for treating cancer in subject having genome with variant allele comprising multidrug resistance 1 polynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human MRP1 variant allele sequence fragment SEQ ID NO:169.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .7%; Score 14; DB 1; Length 21; 3.0%; Pred. No. 4.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 21 BP; 1 A; 1 C; 11 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.0%; Pred. No. 4.1
                      (EPID-) EPIDAUROS BIOTECHNOLOGIE AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (EPID-) EPIDAUROS BIOTECHNOLOGIE AG.
                                                                                                                                                                                                                                                      Claim 2; Page 74; 130pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADB97083 standard; DNA; 21 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-JUL-2002; 2002WO-EP008218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JUL-2001; 2001EP-00117608
24-MAY-2002; 2002EP-00011710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           395 CACACACACCCTGC 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14 cácácácácccrác 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 2; Page 74; 130pp;
                                                                  Heinrich G, Kerb R;
                                                                                                                 WPI; 2003-268145/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-268145/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003013537-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Heinrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADB97083;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADB97083
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to the novel use of irinotecan to treat a patient suffering from cancer. This involves determining if the patient has one or more variant alleles of the UGTIAl gene, and if the patient has one or more of such variant alleles, irrinotecan is administered in an increased or decreased amount in comparison to the amount that is administered has cytostatic activity. A composition of the invention acts as an etopoisomerase I inhibitor. The method is useful for treating a patient, an animal e.g. mouse or a human, preferably African or Asian, suffering from cancer such as colorectal, cervical, gastric cancer, lung, ovarian, pancreatic cancer or malignant glioma. The present sequence is udes in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                   Use of irinotecan to treat cancer patient by determining if patient has variant alleles of UGTIAl gene, administering increased/decreased amounts of irinotecan based on increased/decreased levels of UGTIAl gene product.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        irinotecan; colorectal cancer; cervical cancer; gastric cancer;
lung cancer; ovarian cancer; pancreatic cancer; malignant glioma;
multidrug resistance 1; MDR1; cytostatic; human; ds; Cyp3A5; MRP1; MDR1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human MRP1 variant allele sequence fragment SEQ ID NO:170.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.7%; Score 14; DB 1; Length 21;
100.0%; Pred. No. 4.1e+02;
ative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 21 BP; 8 A; 11 C; 1 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                            (EPID-) EPIDAUROS BIOTECHNOLOGIE AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 49; 107pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 342
ADB97084/c
ID ADB97084 standard; DNA; 21 BP.
                                                                                                                                                             23-JUL-2002; 2002WO-EP008217.
                                                                                                                                                                                                         23-JUL-2001; 2001EP-00117608.
24-MAY-2002; 2002EP-00011710.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JUL-2002; 2002WO-EP008218.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUL-2001; 2001EP-00117608.
24-MAY-2002; 2002EP-00011710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         395 CACACACACCCTGC 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACACACACCCTGC 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-289896/28.
                                                                  WO2003013536-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO2003013537-A2.
                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-DEC-2003
                                                                                                                 20-FEB-2003
                                                                                                                                                                                                                                                                                                                             Heinrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADB97084;
```

8

ö

```
The invention relates to the novel use of irinotecan or its derivative for the preparation of pharmaceutical compositions for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant gliona in a subject having a genome with a variant allele which comprises a multidrug resistance 1 (MDR1) polymuclectide. A composition of the invention has cytostatic activity. The invention is useful for the preparation of pharmaceutical compositions for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant gliona in a subject (preferably human, more preferably African or Asian)
$$99999999999$$
```

Sequence 21 BP; 8 A; 11 C; 1 G; 1 T; 0 U; 0 Other;

Gaps .; Query Match
1.7%; Score 14; DB 1; Length 21;
Best Local Similarity 100.0%; Pred. No. 4.1e+02;
Matches 14; Conservative 0; Mismatches 0; Indels

ó,

395 CACACACACCCTGC 408

ð

cacacacaccerge 21 œ

ADB92274 standard; DNA; 21 RESULT 344 ADB92274

BP.

(first entry) 04-DEC-2003 ADB92274;

Human MRP1 variant allele sequence fragment SEQ ID NO:169.

irinotecan; colorectal cancer; cervical cancer; gastric cancer; lung cancer; ovarian cancer; pancreatic cancer; malignant glioma; multidrug resistance 1; MDR1; cytostatic; ds; human; UGT1A1; MRP1; TOP1.

Homo sapiens

. WO2003013535-A2

20-FEB-2003

23-JUL-2002; 2002WO-EP008220.

23-JUL-2001; 2001EP-00117608. 24-MAY-2002; 2002EP-00011710.

(EPID-) EPIDAUROS BIOTECHNOLOGIE AG

Kerb R; Heinrich G, WPI; 2003-342400/32.

New use of irinotecan for preparation of pharmaceutical compositions for treating cancer in subject having genome with variant allele comprising multidrug resistance 1 polynucleotide.

Disclosure; Page 45; 104pp; English.

The invention relates ro a novel use of irinotecan or its derivative for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject having a genome with a variant allele which comprises a multidrug resistance 1 (MDRI) polynucleotide. A composition of the invention has cytostatic activity. The present sequence is used in the exemplification of the invention.

Sequence 21 BP; 8 A; 11 C; 1 G; 1 T; 0 U; 0 Other;

1.7%; Score 14; DB 1; Length 21; 100.0%; Pred. No. 4.1e+02; Query Match Best Local Similarity

CACACACACCTGC 21 395 CACACACACCCTGC æ RESULT 345 ઠ g

275/c ADB92275 standard; DNA; 21 BP

ADB922

ADB92275;

(first entry) 04-DEC-2003 Human MRP1 variant allele sequence fragment SEQ ID NO:170.

irinotecan; colorectal cancer; cervical cancer; gastric cancer; lung cancer; ovarian cancer; pancreatic cancer; malignant glioma; multidrug resistance 1; MDR1; cytostatic; ds; human; UGT1A1; MRP1; TOP1.

Homo sapiens

WO2003013535-A2.

23-JUL-2002; 2002WO-EP008220.

23-JUL-2001; 2001EP-00117608. 24-MAY-2002; 2002EP-00011710.

(EPID-) EPIDAUROS BIOTECHNOLOGIE AG.

'n Heinrich G, Kerb

WPI; 2003-342400/32.

New use of irinotecan for preparation of pharmaceutical compositions for treating cancer in subject having genome with variant allele comprising multidrug resistance 1 polynucleotide.

Disclosure; Page 45; 104pp; English.

The invention relates ro a novel use of irinotecan or its derivative for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant gloma in a subject having a genome with a variant allele which comprises a multidrug resistance ! (MDRI) polymucleotide. A composition of the invention has cytostatic activity. The present sequence is used in the exemplification of the invention.

Sequence 21 BP; 1 A; 1 C; 11 G; 8 T; 0 U; 0 Other;

ö 1.7%; Score 14; DB 1; Length 21; 100.0%; Pred. No. 4.1e+02; Indels 100.0%; Prec. ... 14; Conservative Best Local Similarity Matches 14; Conserv Query Match

ö

Gaps

ò g 346 AAQ13914

AAQ13914 standard; DNA; 17 BP EXHEXAXE

AAQ13914;

(revised)
(first entry) 25-MAR-2003 05-NOV-1991 Probe YZ30 to N-ras codon 61.

, 1 , 3,-

```
The present invention describes an enzymatic nucleic acid molecule (1) which which with RNA roleaving activity, which modulates the expression of a plant gene. Also described is a gene comprising a cDNA sequence encoding maize Delta-9 desaturase. (1) can be used to modulate expression of a gene, preferably Delta-9 desaturase or a granule bound starch synthase (GBSS) gene, in a plant (preferably a maize or canola plant). (I) can be used to modulate caffeine synthesis in a coffee plant, nicotine production in a tobacco plant, fruit ripering processes in an apple, tomato, pear, plum or peach plant, flower pigmentation in a rose, petunia, chrysanthemum or marigold plant or lignin production in a tobacco, aspen, poplar or pine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel nucleic acid molecule e.g., ribozymes or antisense nucleic acid molecules, which downregulates expression of a checkpoint kinase-1 gene, useful for treating colorectal, lung, breast or prostate cancers.
                                                           Ribozyme which modulates plant gene expression - preferably modulates expression of DELTA-9 desaturase or granule bound starch synthase in maize or canola.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        checkpoint kinase-1; Chk1; antisense; ribozyme; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.7%; Score 13.8; DB 1; Length 17; 82.4%; Pred. No. 3.3e+02; tive 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Holman
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 17 BP; 6 A; 3 C; 6 G; 0 T; 2 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Booher RN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human Chk1 ribozyme substrate SEQ ID NO: 441.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mcswiggen J,
                                                                                                                                                 Claim 41; Page 74; 155pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 4; Page 61; 115pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                776 GAAGAAGTGTGAGCGCA 792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GAAGAAGUUCGAGCGCA 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAH95016 standard; RNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-FEB-2000; 2000US-0179983P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-FEB-2001; 2001WO-US003504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (RIBO-) RIBOZYME PHARM INC. (FATT/) FATTAEY A R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 1.77
Best Local Similarity 82.47
Matches 14, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; checkpoint kinase-
RNA cleavage; cancer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jarvis T,
                    WPI; 1997-202224/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-496922/54.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200157206-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fattaey AR,
ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                       Method for detection of point mutation(s) in nucleic acid segments - where segments encode GTP binding protein or sub-unit and method involves amplification followed by sequence-specific probe hybridisation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This probe corresponds to the sequence around codon 61 of the ras p21 gene. It is one of 63 probes which are of use in detecting point mutations in nucleic acid sequences encoding ras proteins, specifically at positions 12, 13 and 61, three potentially oncogenic sites. See AAQ13900-Q13962. (Updated on 25-MAR-2003 to correct PI field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Maize; corn; Zea mays; delta-9 desaturase; GBSS; target; substrate; granule bound starch synthase; hammerhead ribozyme; hairpin ribozyme; modulation; gene expression; transgenic plant; cleavage; canola plant; caffeine synthesis; coffee plant; nicotine production; tobacco; fruit ripening; flower pigmentation; lignin production; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Granule bound starch synthase hammerhead substrate SEQ ID NO:147.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.7%; Score 13.8; DB 1; Length 17; 88.2%; Pred. No. 3.3e+02; ative 0; Mismatches 2; Indels
                    ras; point mutation; oncogenesis; PCR; tumour; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 17 BP; 7 A; 1 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example; Page 57; 69pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   769 AACTGGAGAAGAGTGT 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAX62272 standard; RNA; 17 BP.
                                                                                                                                                                                             90US-00477260.
                                                                                                                                                                                                                                   90US-00477260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95US-0001135P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCTGGAGAGAGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                          Lyons JF;
                                                                                                                                                                                                                                                                                                                                                                WPI; 1991-267154/36.
                                                                                                                                                                                                                                                                              CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                              (CETU ) CETUS
                                                                                                                                                                                                                                                                                                                       Mccormick FP,
                                                                                                                                                                                          07-FEB-1990;
                                                                                                                                                                                                                                   07-FEB-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9710328-A2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-JUL-1995;
                                                                                                    409112343-A
                                                                                                                                                 22-AUG-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-MAR-1997
                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAX62272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 347
```

ò

Gaps

·.

(first entry)

```
The present invention relates to oligonucleotides that downregulate the expression of human Grb2-related with Insert Domain (GRID) gene. GRID is a T-cell co-stimulatory daptor protein. The oligonucleotides are useful for modulating the expression of GRID, to treat conditions such as tissue/graft rejection and leukaemia. The oligonucleotides can also be administered in conjunction with other therapies such as radiation, chemotherapy and cyclosporin treatment. The present oligonucleotide was used to illustrate the invention
                                                                                              Human, Grb2-related with Insert Domain, GRID, T-cell, co-stimulatory adaptor protein; tissue rejection, graft rejection; leukaemia, cytostatic, ss.
                                                                                                                                                                                                                                                                                                                                                                                                        New nucleic acid(s) for regulating the Grb2-related with Insert I (GRID) gene comprises using antisense and enzymatic nucleic acid molecules such as hammerhead ribozymes.
                                                                     Human GRID NCH ribozyme substrate oligonucleotide #207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 17 BP; 4 A; 9 C; 4 G; 0 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 4; Page 66; 108pp; English.
                                                                                                                                                                                                                                                                            24-FEB-2000; 2000US-0184594P.
                                                                                                                                                                                                                                                23-FEB-2001; 2001WO-US005957.
                                                                                                                                                                                                                                                                                                      (RIBO-) RIBOZYME PHARM INC. (GLAX ) GLAXO GROUP LTD.
                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-550088/61.
                                                                                                                                                                                        WO200162911-A2
                                         27-JUN-2003
                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                  30-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                   Jarvis T,
             ABL46753;
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to oligonucleotides that downregulate the expression of human Grb2-related with Insert Domain (GRID) gene. GRID is a T-cell co-stimulatory adaptor protein. The oligonucleotides are useful for modulating the expression of GRID, to treat conditions such as tissue/graft rejection and leukaemia. The oligonucleotides can also be administered in conjunction with other therapies such as radiation, chemotherapy and cyclosporin treatment. The present oligonucleotide was used to illustrate the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                    Human, Grb2-related with Insert Domain, GRID, T-cell, co-stimulatory adaptor protein; tissue rejection, graft rejection; leukaemia, cytostatic, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ellis JH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New nucleic acid(s) for regulating the Grb2-related with Insert [ (GRID) gene comprises using antisense and enzymatic nucleic acid molecules such as hammerhead ribozymes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
                                                                                      ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.7%; Score 13.8; DB 1; Length 17;
88.2%; Pred. No. 3.3e+02;
tive 0; Mismatches 2; Indels
                                                       1.7%; Score 13.8; DB 1; Length 17;
88.2%; Pred. No. 3.3e+02;
ative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jarvis I, Von Carlowitz I, Mcswiggen JA, Hamblin PA,
                                                                                                                                                                                                                                                                                                         Human GRID NCH ribozyme substrate oligonucleotide #208.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 17 BP; 5 A; 9 C; 3 G; 0 T; 0 U; 0 Other;
                           Sequence 17 BP; 3 A; 5 C; 3 G; 0 T; 6 U; 0 Other;
 the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 4; Page 66; 108pp; English
                                                                                                                  326 AGAAGCTGTGGAGCAAC 342
                                                                                                                                                                                                                       ВР
                                                                                                                                           17 AGAAGTICTGGAGCAAC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-FEB-2001; 2001WO-US005957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-FEB-2000; 2000US-0184594P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (RIBO-) RIBOZYME PHARM INC. (GLAX ) GLAXO GROUP LTD.
                                                                                                                                                                                                                      ABL46754 standard; RNA; 17
                                                                                                                                                                                                                                                                               (first entry)
                                                       Query Match
Best Local Similarity 88.28
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-550088/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
es 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                            WO200162911-A2.
                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                               27-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                   ABL46754;
                                                                                                                                                                                           RESULT 349
ABL46754/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                                                                                                                                                                                                                      SXS
                                                                                                                    8
                                                                                                                                              셤
```

Domain

H,

Ellis

Hamblin PA,

Von Carlowitz I, Mcswiggen JA,

```
ö
                                                                                                                                                                                                                                                                                                                                                                                  primer; Eurol.
                                          .
                                                                                                                                                                                                                                                                                                                                              Porcine reproductive and respiratory virus, PCR primer Eurol
1.7%; Score 13.8; DB 1; Length 17;
88.2%; Pred. No. 3.3e+02;
tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                  PSSRV infection; vaccine; immunogen; antibody; ss; PCR
                                                                                                                                                                                                                                                                                                                                                                                                                           Porcine reproductive and respiratory syndrome virus
                                                                                138 GCTTTGGGGGCTGCAGC 154
                                                                                                                                                                                                                 BP.
                                                                                                                                                                         RESULT 351
AAS11599/c
ID AAS11599 standard; DNA; 17
                                                                                                          17 GCTGTGGGGGCTGCTGC
                                                                                                                                                                                                                                                                                          (revised)
(first entry)
  Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200159077-A1.
                                                                                                                                                                                                                                                                                          06-AUG-2003
24-OCT-2001
                                                                                                                                                                                                                                                       AAS11599;
```

137 TGCTTTGGGGGCTGCAG 153

ò

11

BP.

ABL46753 standard; RNA; 17

RESULT 350 ABL46753/c ID ABL4675

30-WAR-2000; 2000US-0193220P. 24-MAY-2000; 2000US-0206624P. 29-JUN-2000; 2000US-0215373P. 05-JAN-2001; 2001US-0260041P.

UNIV MINNESOTA.

COLLINS J E. FAABERG K S.

(COLL/) (FAAB/) (ROSS/) MINU)

ROSSOW K D.

08-FEB-2001; 2001WO-US004351

2000US-0181041P

08-FEB-2000;

ROSSOW KD;

Faaberg KS,

Collins JE,

WPI; 2001-514657/56

Disclosure; Page 28; 74pp; English

sequence.

```
The present invention describes a method for predicting the potential of an oligonucleotide to hybridise to a (complementary) target nucleotide sequence, involving identifying a subset of oligonucleotides within the predetermined number of unique oligonucleotides based on the evaluation of the parameter. Oligonucleotides in the subset are identified that are clustered along a region of the nucleotide sequence that is hybridisable to the target nucleotide sequence. This is useful for evaluating oligonucleotide probe sequences. The present sequence is an oligonucleotide described in the exemplification of the invention
                                                                                                                                                                                                                                                                                  Predicting the potential of an oligonuclectide to hybridize to a target nuclectide sequence, useful for evaluating oligonuclectide probe sequences, by identifying a oligonuclectides based on the evaluation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human, genome-derived myosin-like protein 1, GDMLP-1, hGDMLP-1, heart, muscle, myosin, chromosome 22, gene therapy, vaccine, heart disease, skeletal muscle disorder; amplicon, screening, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:8379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                         Kincaid RH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.7%; Score 13.8; DB 1; Length 17;
18.2%; Pred. No. 3.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                         Webb PG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 17 BP; 1 A; 1 C; 7 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                         Delenstarr GC,
                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Col 49; 342pp; English
                                                                                                                                           (AGIL-) AGILENT TECHNOLOGIES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               133 TGTCTGCTTTGGGGGCT 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABN08387 standard; DNA; 17 BP.
                                                                                           98US-00021701.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0234687P.
2000US-0236359P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-JAN-2001; 2001WO-US000665.
30-JAN-2001; 2001WO-US000666.
30-JAN-2001; 2001WO-US000667.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-MAY-2001; 2001WO-US016981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001WO-US000662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000GB-00024263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US000661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       001WO-US000663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTCTGTTTTGGGGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 88.2 nes 15, Conservative
                                                                                                                                                                                                                                       WPI; 2001-424456/45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200192524-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-JAN-2001;
30-JAN-2001;
30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                              10-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-JAN-2001;
26-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-MAY-2002
                                                                                                                                                                                                                                                                                                                                                              parameters.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-DEC-2001
                                                                                                                                                                                         Shannon KW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABN08387;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABN08387/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to an isolated porcine reproductive and respiratory syndrome virus (PRRSV) (deposited with ATCC, not stated) or comprising an antibody that binds to a European-like PRRSV is useful for detecting a natibody that binds to a European-like PRRSV is useful for detecting a pressor of antibody under conditions to form a complex with a virus particle, and detecting the complex, where the presence of the complex indicates the presence of PRRSV, or by providing a biological sample from a porcine subject, adding the antibody to the sample under conditions to form a complex with a virus particle in the sample and detecting the complex, where the presence of the complex indicates the presence of presence of the complex indicates and precipility in precipies the presence of precipies is useful for treating a porcine subject at risk of infection with a PRRSV or displaying symptoms of a present equence is a PCR primer used to distinguish between a burdopean-like pressv. (Updated on 06-AUG-2003 to correct OS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                         Isolated porcine reproductive and respiratory syndrome virus useful for production of antibodies, comprises RNA polynucleotide with specified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 111.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nucleic acid hybridisation; probe; primer; human; rabbit; HIV-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 13.8; DB 1; Length 17; Pred. No. 3.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 17 BP; 2 A; 3 C; 6 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
```

260 AGACAGGAGCACCITCA 276

ઠે g

17 AGACCAGAGCACCTTCA

1.7%;

Query Match
Best Local Similarity 88.29
Matches 15, Conservative

field.)

AAH80147 standard; cDNA; 17 BP

RESULT 352 AAH80147 (first entry)

19-SEP-2001

AAH80147;

disease diagnosis; ss. Oryctolagus cuniculus.

US6251588-B1

0

Gaps

Shannon ME;

Chen W,

Rank DR,

```
The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-1 can be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids can be used as probes to detect, characterise and quantify hGDMLP-1 nucleic acids in samples, as amplification substrates, to hGDMLP-1 nucleic acids in samples, as amplification substrates, to provide initial substrates for the recombinant engineering of hGDMLP-1 protein variants having desired phenctypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunospens to raise antibodies that specifically recognise hGDMLP-1 proteins, as specifically recognise hGDMLP-1 proteins, as specifically recognise hGDMLP-1 proteins, as specific biomolecule and/or amount specifically proteins, as specific biomolecule and/or amount specifically proteins, as specific biomolecule or capture probes for surface-enhanced laser desorption ionisation, as therapeutic supplement in patients having specific deficiency in hGDMLP-1 production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The production and skeletal muscle disorders, hGDMLP-1 is localised to chromosome 22.

The present sequence represents an oligomer used in the screening of the hGDMLP-1 sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO capture the property of the present directly from WIPO capture and sequence in this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO captured patents in the processor of the printed captured patents and sequence in the processor of the present directly from WIPO captured patents and patents and sequence in the processor of the present directly from WIPO captured patents and patents and patents and patents and pa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart; muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:8382.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Match 1.7%; Score 13.8; DB 1; Length 17; Local Similarity 88.2%; Pred. No. 3.3e+02; es 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 17 BP; 5 A; 5 C; 6 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; SEQ ID NO 8379; 214pp; English
                                                                                                                                                                                                                                                                                                         Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  405 CTGCTCCAGCAGGCTCT 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
30-JAN-2001; 2001WO-US000668.
30-JAN-2001; 2001WO-US000669.
30-JAN-2001; 2001WO-US000670.
05-FEB-2001; 2001US-0266860P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAY-2001; 2001WO-US016981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17 CTGCTCCAGCTGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABN08390 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-MAY-2002 (first entry)
                                                                                                                                                                                                                                                                                                     Gu Y, Ji Y, Penn SG,
                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-179446/23.
                                                                                                                                                                                                                  (AEOM-) AEOMICA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200192524-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-DEC-2001,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABN08390;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABN0 6390 / 11D ABN0 6390 / 12D ABN0 6300 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 2000 / 
q
```

```
The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-1 can be used as probes to detect, characterise and quantify nucleic acids can samples, as amplification substrates, to provide initial substrates for the recombinant engineering of hGDMLP-1 protein variants having desired phonotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunogens to raise antibodies that specifically recognise hGDMLP-1 proteins as specific biomolecule and/or amount specifically of hGDMLP-proteins, as specific biomolecule and/or amount specifically of hGDMLP-proteins, as specific biomolecule capture probes for surface-enhanced laser describion ionisation, as therapeutic supplement in patients having specific deficiency in hGDMLP-1 production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a disorder associated with the expression of hGDMLP-1, in particular heart and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.

The present sequence in the exemplification of the present invention. N.B. The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from MIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                  New polypeptide, for raising antibodies that recognize hGDWLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; genome-derived myosin-like protein 1; GDMLP-1; heart;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                           Shannon ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:8381.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.7%; Score 13.8; DB 1; Length 17;
88.2%; Pred. No. 3.3e+02;
7ative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                        Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 17 BP; 4 A; 4 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                           Rank DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            at ftp.wipo.int/pub/published_pct_sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; SEQ ID NO 8382; 214pp; English
                                                                                                                                                                                                                                                                                                                                                           Hanzel DK,
          21.5EP-2000, 2000US-02345879.
24-027-2000, 2000US-02345879.
24-037-2000, 2000US-02345879.
30-JAN-2001, 2001WO-US000661.
30-JAN-2001, 2001WO-US000663.
30-JAN-2001, 2001WO-US000663.
30-JAN-2001, 2001WO-US000666.
30-JAN-2001, 2001WO-US000666.
30-JAN-2001, 2001WO-US000666.
30-JAN-2001, 2001WO-US000666.
30-JAN-2001, 2001WO-US0006670.
30-JAN-2001, 2001WO-US0006670.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17 ACTCTGCTCCAGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCCTGCTCCAGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABN08389 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-MAY-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                      Gu Y, Ji Y, Penn SG,
                                                                                                                                                                                                                                                                                                                   (AEOM-) AEOMICA INC.
                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-179446/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Simil
Matches 15; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABN08389;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABNO8389/
ID ABNO
XX AC ABNO
XX DT 29-M
XX XX KX HUMB
XX KW HUMB
쉱
```

ô

Gaps

; 0

ö

. T 15

ABN08391 standard; DNA; 17 BP.

ABN08391

(first entry)

29-MAY-2002

ABN08391;

```
The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polymucleotide sequences of hGDMLP-1 can be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids can be used as probes to detect, characterise and quantify complete acids in samples, as amplification substrates, to hGDMLP-1 protein variants having desired phenotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunogens to raise antibodies that specifically recognise hGDMLP-1 proteins, as standards in assays used to determine the concentration and/or amount specifically of hGDMLP-1 proteins, as specific blomolecule capture probes for surface-enhanced laser desorption ionisation, as therapeutic supplement in patients having specific deficiency in hGDMLP-1 production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The production associated with the expression of hGDMLP-1, in particular heart and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.

The present sequence represents an oligomer used in the screening of the hGDMLP-1 sequence data for this patent did not form part of the printed the capture of this patent did not form part of the printed the capture of the present invention. N.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser descrption ionization, comprises human myosin-like protein hGDMLP-1.
muscle, myosin; chromosome 22; gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 17 BP; 5 A; 4 C; 7 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rank DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 8381; 214pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        specification, but was obtained in electror
at ftp.wipo.int/pub/published_pct_sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hanzel DK,
                                                                                                                                                                                                                                                                                2001WO-US000661.
2001WO-US000662.
2001WO-US000663.
2001WO-US000664.
                                                                                                                                                                                                                        2000US-0234687P.
2000US-0236359P.
2000GB-00024263.
                                                                                                                                                                                                                                                                                                                                                                                                                   2001WO-US000668.
                                                                                                                                                                                                                                                                                                                                                                                                                                   2001WO-US000669.
2001WO-US000670.
2001US-0266860P.
                                                                                                                                                                                                                                                                                                                                                              2001WO-US000665
                                                                                                                                                                                                                                                                                                                                                                              2001WO-US000666.
2001WO-US000667.
                                                                                                                                                                       25-MAY-2001; 2001WO-US016981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ji Y, Penn SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-179446/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AEOM-) AEOMICA INC.
                                                                                               WO200192524-A2.
                                                                                                                                                                                                                                                                                                      30-JAN-2001;
30-JAN-2001;
30-JAN-2001;
                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                    30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                              30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                              30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                     30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-FEB-2001;
                                                                                                                                                                                                                                                27-SEP-2000;
                                                                                                                                                                                                                                                                  04-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                     30-JAN-2001;
                                                                                                                                   06-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gu Y,
```

Shannon ME;

```
New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1.
                                                Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart; muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss.
                                                                                                                                                                                                                                                                                                                      Shannon ME;
                                 Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:8383.
                                                                                                                                                                                                                                                                                                                      Chen W,
                                                                                                                                                                                                                                                                                                                      Rank DR,
                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 8383; 214pp; English.
                                                                                                                                                                                                                                                                                                                      Hanzel DK,
                                                                                                                                                                                                                                                        2001WO-US000668.
2001WO-US000669.
2001WO-US000670.
2001US-0266860P.
                                                                                                                                          25-MAY-2001; 2001WO-US016981
                                                                                                                                                                                                                      2001WO-US000664
                                                                                                                                                                                                                                2001WO-US000665
                                                                                                                                                                                                                                        2001WO-US000666
                                                                                                                                                                                                                                                 2001WO-US000667
                                                                                                                                                                                              2001WO-US000661
                                                                                                                                                                                                       2001WO-US000662
                                                                                                                                                                                                               2001WO-US000663
                                                                                                                                                                                                                                                                                                                      Penn SG,
                                                                                                                                                                                                                                                                                                                                       WPI; 2002-179446/23.
                                                                                                                                                                                                                                                                                                      (AEOM-) AEOMICA INC.
                                                                                                        WO200192524-A2.
                                                                                                                                                                                                                                                                                                                      Ji Y,
                                                                                                                                                                                                      30-JAN-2001;
30-JAN-2001;
30-JAN-2001;
30-JAN-2001;
                                                                                       Homo sapiens
                                                                                                                                                                                     04-OCT-2000;
                                                                                                                                                                                             10-JAN-2001;
                                                                                                                                                                                                                                        10-JAN-2001;
                                                                                                                                                                                                                                                          0-JAN-2001;
                                                                                                                                                                                                                                                                   10-JAN-2001;
                                                                                                                         06-DEC-2001
                                                                                                                                                                              27-SEP-2000
                                                                                                                                                                                                                                                                                                                      Gu Y,
```

The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polymucleotide sequences of hGDMLP-1 can be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids in samples, as amplification substrates, to hGDMLP-1 nucleic acids can be used as probes to detect, characterise and quantify compared initial substrates for the recombinant engineering of hGDMLP-1 protein variants having desired phenotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunospens to raise antibodies that specifically recognise hGDMLP-1 proteins, as standards in assays used to determine the concentration and/or amount specifically of hGDMLP proteins, as specific biomolecule capture probes for surface-enhanced laser describing in onisation, as therapeutic supplement in patients having specific deficiency in hGDMLP-1 proteins, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The concentration of isolated sequence encoding hGDMLP-1 my be used for diagnosing a disorder associated with the expression of hGDMLP-1, in particular heart and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.

The present sequence represents an oligomer used in the screenling of the hGDMLP-1 sequence data for this patent did not form part of the printed per printed in the hard per person of the present invention. We at the wire in the hard not eccentaring of the present invention. We at the wire in the hard not eccentaring of the present invention.

at ftp.wipo.int/pub/published_pct_sequence

ô

Gaps

..

1.7%; Score 13.8; DB 1; Length 17; 88.2%; Pred. No. 3.3e+02; Live 0; Mismatches 2; Indels

Query Match
Best Local Similarity 88.2
Matches 15; Conservative

403 CCCTGCTCCAGCAGGCT 419

8

crcrecrccaecreecr

17

```
ö
                                                                                                                                                                                                           Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip; antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease; schizophrenia; protein chip; gene therapy; tumour suppression; human fukutin; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated nucleic acid, useful for treating viral diseases associated with tumors and cell degeneration, also related polypeptides, antibodies and transfected cells.
                                        Gaps
                                        ·
0
                     Length 17;
                   Query Match 1.7%; Score 13.8; DB 1; Length 1 Best Local Similarity 88.2%; Pred. No. 3.3e+02; Matches 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                         Tumour suppression related human fukutin oligo SEQ ID No
Sequence 17 BP; 4 A; 4 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                   Ξ̈
                                                          401 CACCCTGCTCCAGCAGG 417
                                                                                                                              ABT34448 standard; DNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                              (MOLE-) MOLECULAR ENGINES LAB.
                                                                             17 cacrcracrccascres 1
                                                                                                                                                                                                                                                                                                                                            17-SEP-2001; 2001FR-00011978.
                                                                                                                                                                                                                                                                                                                       17-SEP-2002; 2002WO-IB004208
                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                  relerman A, Amson R,
                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-313353/30.
                                                                                                                                                                                                                                                                                 WO2003025175-A2.
                                                                                                                                                                                                                                                              Homo sapiens,
                                                                                                                                                                     12-JUN-2003
                                                                                                                                                                                                                                                                                                   27-MAR-2003.
                                                                                                                                                  ABT34448;
                                                                                                          g
                                                          à
                                                                            d
```

The invention relates to a novel isolated 17 mer nucleic acid sequence, given in the specification, a sequence containing at least 15 consecutive nucleotides from the 17 mer sequence, a sequence with, after optimal alignment, at least 80 % identity to the 17 mer sequence that alignment at least 80 % identity to the 17 mer sequence that hybridizes to them under highly stringent conditions, or the complement of any of them, or the corresponding RNA. The novel isolated nucleic acids of the invention are useful as probes and primers for detecting, identifying, quantifying and/or amplifying a nucleic acid, e.g. as one component of a gene chip, in vitro as (anti) sense reagents, and for production of recombinant polypeptides. Any of the nucleic acids, concoment of a gene chip, in vitro as (anti) sense reagents, and for production of recombinant polypeptides. Any of the nucleic acids, concornent of pharmaceuticals for prevention and/or treatment of viral diseases that are characterised by development of tumours or cell diseases that are characterised by development of tumours or cell diseases that are playeptides can also be used to generate antibodies, and schizophrenia. Analysis of the expression of the 17 mer nucleic acids in patient samples is useful for diagnosis and/or prognosis of these components of protein chips. The nucleic acid sequences of the invention can be used in gene therapy. This polymucleotide sequence represents a tumour suppression related human fukutin oligonucleotide of the invention

Disclosure; Page 44; 720pp; French.

Sequence 17 BP; 5 A; 6 C; 3 G; 3 T; 0 U; 0 Other;

Score 13.8; DB 1; Length 17; Pred. No. 3.3e+02;

1.7%; 88.2%;

Query Match Best Local Similarity

```
The invention relates to a novel isolated 17 mer nucleic acid sequence, given in the specification, a sequence containing at least 15 consecutive mucleotides from the 17 mer sequence, a sequence with, after optimal alignment, at least 80 % identity to the 17 mer sequence, a sequence that hybridizes to them under highly stringent conditions, or the complement of anny of them, or the corresponding RNA. The novel isolated nucleic cands of the invention are useful as probes and primers for detecting, identifying, quantifying and/or amplifying a nucleic acid, e.g. as one conditions of recombinant polypeptides. Any of the nucleic acids, and for production of recombinant polypeptides. Any of the nucleic acids, oblypeptides, vectors containing the nucleic acids, cells containing the vector or antibodies directed against the polypeptides are useful for preparation of pharmaceuticals for prevention and/or treatment of viral diseases that are characterised by development of tumours or cell degeneration, specifically cancer but also Alzheimer's disease and stitutophrenta Analysis of the expression of the 17 mer nucleic acids in patient samples is useful for diagnosis and/or prognosis of these contents and properties can also be used to generate antibodies, and choth the polypeptides can also be used to generate antibodies, and choth the polypeptide and antibodies are useful as components of protein chips. The nucleic acid sequence of the invention can be used in gene therapy. This polynucleotide sequence represents a tumour suppression related human fukutin oligonucleotide of the invention
                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                              Cytostatic, virucide, neuroprotective, nootropic, neuroleptic, gene chip, antisense, sense, tumour, cell degeneration, cancer, Alzheimer's disease, schizophrenia, protein chip, gene therapy, tumour suppression, human fukutin, ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated nucleic acid, useful for treating viral diseases associated with tumors and cell degeneration, also related polypeptides, antibodies and transfected cells.
                                                                    Gaps
                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                        Tumour suppression related human fukutin oligo SEQ ID No 5301.
                      1.7%; Score 13.8; DB 1; Length 17; 88.2%; Pred. No. 3.3e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 17 BP; 1 A; 10 C; 2 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 653; 720pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tuijnder M;
                                                                                                            883
                                                                                                                                        1 GATCCCAACTCCAGTGA 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MOLE-) MOLECULAR ENGINES LAB.
                                                                                                                                                                                                                                                           ABT39664 standard; DNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-SEP-2002; 2002WO-IB004208.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001FR-00011978.
                                                                                                          867 GAGCCCAACTCCATTGA
                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     relerman A, Amson R,
Query Match
Best Local Similarity
Thes 15; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-313353/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003025175-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                               12-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-MAR-2003.
                                                                                                                                                                                                                                                           g
```

BP.

(first entry)

23-SEP-2003

ACD61578

ACD61578/c ID ACD61578 standard; RNA; 17

```
The present invention relates to novel human zinc finger-containing proteins and their coding sequences: MDZ3, MDZ4, MDZ12, MDZ12. MDZ3 is proteins and their coding sequences: MDZ3, MDZ4, MDZ12, MDZ12. MDZ3 is encoded at chromosome fQ22.1, MDZ4 is encoded at chromosome fQ22.1, MDZ7 is encoded at chromosome 16p11.2 and MDZ12 is encoded at chromosome 16p11.2 and MDZ12 is encoded at chromosome correction in manufacturing a medicament for treating or preventing a disorder sessociated with decreased or increased expression or activity of MDZ3, MDZ4, MDZ7, or MDZ12, e.g. cancer or developmental disorders. The nucleic acids and proteins are also useful for diagnosing or monitoring a disease caused by altered expression of MDZ3, MDZ4, MDZ7, or MDZ12. The nucleic acids can also be used as probes to detect and characterize gross alterations in MDZ3, MDZ4, MDZ7, or MDZ12 genetic locus. The probes are protein are useful as therapeutic agents for gene therapy or as proteins are useful as therapeutic agents for gene therapy or as vaccines. The present sequence was used to illustrate the invention.
.
                                                                                                                                                                                                                                                                                                                   Cytostatic; immunostimulant; gene therapy; vaccine; human; zinc finger protein; MDZ3; MDZ4; MDZ12; chromosome 7q22.1; chromosome 6p21.3-22.2; chromosome 16p11.2; chromosome 15q26.1; cancer; developmental disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New zinc finger-containing proteins and nucleic acids, useful in manufacturing a medicament for treating or preventing a disorder associated with decreased or increased expression or activity of MDZ3, MDZ4, MDZ7 or MDZ12, e.g. cancer.
  Gaps
  ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11.7%; Score 13.8; DB 1; Length 17; 38.2%; Pred. No. 3.3e+02; Vet 0; Mismatches 2; Indels
  Indels
  ..
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 17 BP; 6 A; 3 C; 6 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                   Human MDZ4 scanning oligonucleotide SEQ ID 3146.
  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 8; SEQ ID NO 3146; 103pp; English.
  .
0
                                        584
                                                                        1 GATCCTCCTGCCTCCC 17
                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JUL-2002; 2002EP-00016874.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-AUG-2001; 2001US-00922181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gu Y, Nguyen C;
                                        568 GAICCICGCIGCCICAC
                                                                                                                                                                      ADB02160 standard; DNA; 17
                                                                                                                                                                                                                                                 (first entry)
  15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-423107/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AEOM-) AEOMICA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                            EP1281758-A2.
                                                                                                                                                                                                                                                 20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shannon M,
                                                                                                                                                                                                             ADB02160;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                  Matches
```

```
The present invention relates to nucleic acid molecules which modulate the synthesis, expression and/or stability of Hepatitis C virus (HCV) or Hepatitis B virus (HHV) RNA. The nucleic acid molecules include antisense and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes, are nucleic acid decoy molecules and G-cleaver ribozymes. Also disclosed are uncleic acid decoy molecules and G-cleaver ribozymes. Also disclosed transcriptase and/or HBV reverse transcriptase primer sequences, as well as oligonuclectides that specifically bind the Enhancer I region of HBV genes and HBV viral replication. Also disclosed is a method for screening compounds and/or potential therapies directed against HBV, and compounds that modulate the expression and/or large treatment of degenerative and disease states related to HBV and HCV infection, replication and gene actod states related to HBV and HCV infection, replication and gene carcinoma. The present sequence represents a substrate for one of the HCV brazyme or minus strand DNAzyme sequences disclosed in the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel compound useful for treating cirrhosis, liver failure, hepatocellular carcinoma, or condition associated with hepatitis C virus
                                                                                                                   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV; RNA stability; RNA expression; RNA synthesis; antisense; enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; Inozyme; amberzyme; G-cleaver ribozyme; decoy molecule; aptemer; HBV reverse transcriptase; Enhancer I region; viral replication; degenerative; disease state; HBV infection; HCV infection; cirrhosis; liver failure; hepatocellular carcinoma; hepatotropic; cytostatic; virucide; antiinflammatory; substrate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ď.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pavco P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Morrissey D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 17 BP; 2 A; 5 C; 2 G; 0 T; 8 U; 0 Other;
                                                                                            HCV minus strand DNAzyme substrate sequence #113.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mcswiggen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 277; 387pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                            26-MAR-2001; 2001US-00817879.
08-JUN-2001; 2001US-00877478.
08-JUN-2001; 2001US-0296876P.
24-0CT-2001; 2001US-0335059P.
05-DEC-2001; 2001US-0337055P.
                                                                                                                                                                                                                                                                                                                                                                              26-MAR-2002; 2002WO-US009187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIBOZYME PHARM INC.
BLATT L.
MACEJAK D.
MCSWIGGEN J.
MORRISSEY D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Macejak D,
Roberts E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-229207/22
                                                                                                                                                                                                                                                                             Hepatitis C virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LEE P.
DRAPER K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ROBERTS E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Macejak
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PAVCO P.
                                                                                                                                                                                                                                                                                                               WO200281494-A1.
                                                                                                                                                                                                                                                                                                                                                17-0CT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Blatt L, M
Draper K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (RIBO-)
(BLAT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (PAVC/)
(LEEP/)
(DRAP/)
(ROBE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MACE/)
(MCSW/)
(MORR/)
```

ö

Gaps

; 0

317 AGACTGCAGAGAAGCTG 333

ò

88.2%;

Conservative

Best Local Similarity Matches 15; Conserv

1 AGACTGCAGAGATGCAG 17

RESULT 360

Fri

schu568-1.rng

ö

```
The present invention relates to nucleic acid molecules which modulate the synthesis, expression and/or stability of Hepatitis C virus (HCV) or Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense and enzymatic nucleic acids such as hammerhead ribozymes. DNAzymes, inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed are nucleic acid decoy molecules and aptamers that bind to HBV reverse transcriptase and/or HBV reverse transcriptase primer sequences, as well as oligonucleotides that specifically bind the Enhancer I region of HBV DNA. The nucleic acids may be used to modulate the expression of HBV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             compound useful for treating cirrhosis, liver failure, ocellular carcinoma, or condition associated with hepatitis C virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nucleic acid molecule, Hepatitis C virus, HCV; Hepatitis B virus; HBV; RNA stability; RNA expression; RNA synthesis; antisense; enzymatic nucleic acid, hammerhead ribozyme; DNAzyme; inozyme; zinzyme; amberzyme; G-dleaver ribozyme; decoy molecule; aptamer; HBV reverse transcriptase; Enhancer I region; viral replication; degenerative; disease state; HBV infection; HCV infection; cirrhosis; liver failure; hepatocellular carcinoma; hepatotropic; cytostatic; virucide; antiinflammatory; substrate; ss.
                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lee P;
                                                             .
0
      Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mcswiggen J, Morrissey D, Pavco P,
                                                          2; Indels
   Score 13.8; DB 1;
Pred. No. 3.3e+02;
                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HCV DNAzyme substrate sequence #2165.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 272; 387pp; English.
                                                                                                                     264 AGGAGCACCTTCAGAAA 280
                                                                                                                                                                                                                                                                                                                           BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-MAR-2001; 2001US-00817879.
08-UUN-2001; 2001US-00877478.
08-UUN-2001; 2001US-0296876P.
24-OCT-2001; 2001US-0337055P.
   1.7%;
88.2%;
                                                                                                                                                                          ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-MAR-2002; 2002WO-US009187
                                                                                                                                                             17 AGGAGCAACTTGAGAAA
                                                                                                                                                                                                                                                                                                                        ACD61091 standard; RNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIBOZYME PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hepatocellular carcinoma,
                                                          15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Macejak D,
Roberts E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BLATT L.
MACEJAK D.
MCSWIGGEN J.
MORRISSEY D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-229207/22
Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hepatitis C virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ROBERTS E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAVCO P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DRAPER K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200281494-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                           24-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-0CT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Blatt L, N
Draper K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 infection
                                                                                                                                                                                                                                                                                                                                                                                   ACD61091;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (RIBO-)
(BLAT/)
(MACE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MORR/)
(PAVC/)
(LEEP/)
(DRAP/)
(ROBE/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MCSM/)
                                                                                                                                                                                                                                                          RESULT 361
ACD61091
XX
XX
ACD6100
XX
ACC
ACD610
XX
DT 24-SEP
XX
NUClei
KW RNA BND-EZ
KW HBV LIVET
KW KW LIVET
KW HBV LIVET
KW KW LIVET
KW KW LIVET
KW KW LIVET
KW KW LIVET
KW L
```

```
·;
genes and HBV viral replication. Also disclosed is a method for screening compounds and/or potential therapies directed against HBV, and compounds that modulate the expression and/or replication of HCV. The compounds and methods of the invention are useful for the treatment of degenerative and disease states related to HBV and HCV infection, replication and gene carpression such as cirrhosis, liver failure, and hepatoceallular carcinoma. The present sequence represents a substrate for one of the HCV DNAzyme or minus strand DNAzyme sequences disclosed in the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to murine oligonucleotides (ACC62754-ACC68806), which are associated with tumour suppression, tumour reversion, apoptosis and virus resistance. The oligonucleotides are useful as (1) as probes and primers for detecting, identifying, quantifying and/or amplifying nucleic acid, e.g. as one component of a gene chip; in vitro as (anti)sense reagents; and (2) for production of recombinant polypeptides. The oligonucleotides are useful for preparation of pharmaceuticals for prevention and/or treatment of viral diseases that are characterised by development of tumours or cell degeneration,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated nucleic acid, useful for treating viral diseases associated with tumors and cell degeneration, also related polypeptides, antibodies and transfected cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; murine; tumour suppression; tumour reversion; apoptosis; virus resistance; viral disease; tumour; cell degeneration; cancer; Alzheimer's disease; schizophrenia; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Murine oligonucleotide associated with tumour supression, SEQ ID 5990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    specifically cancer but also Alzheimer's disease and schizophrenia
                                                                                                                                                                                                                                                                                      ..
0
                                                                                                                                                                                                                                           1.7%; Score 13.8; DB 1; Length 17; 76.5%; Pred. No. 3.38+02; Live 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7%; Score 13.8; DB 1; Length 17; 88.2%; Pred. No. 3.3e+02;
                                                                                                                                                                                                       Sequence 17 BP; 7 A; 3 C; 5 G; 0 T; 2 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 17 BP; 3 A; 8 C; 2 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure, Page 731; 738pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tuijnder M;
                                                                                                                                                                                                                                                                                                                            263 CAGGAGCACCTTCAGAA 279
                                                                                                                                                                                                                                                                                                                                                    CAGGAGCAACUUGAGAA 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-SEP-2001; 2001FR-00011979.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-SEP-2002; 2002WO-IB004210.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACC68743 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MOLE-) MOLECULAR ENGINES
                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               relerman A, Amson R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-333167/31.
                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2003025176-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
                                                                                                                                                                                                                                                                                      13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-MAR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACC68743;
                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                     Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACC68743
  88888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

15;

Matches

```
fragments of at least 15 consecutive nucleotides of these nucleotides, a fragments of at least 15 consecutive nucleotides of these nucleotides, a sequence having at least 8% identity, after optimal alignment, with the nucleotides, or the complement, or corresponding RNA, of the nucleotides. The nucleotides are used as probes or primers for detecting, identifying adualtifying and/or amplifying nucleic acids, as in vitro sense and antisense sequences, of nucleotides involved in tumour suppression or reversion, apoptosis and or viral resistance, to produce recombinant polypeptides, and to preper transgenic animals, as recombinant polypeptides, and to preper transgenic animals, as recombinant pulypeptides, in the nucleotides (also vectors containing them and cells containing the vectors), the encoded polypeptides and antibodies (Ab) against the polypeptide are useful for prevention and/or treatment of viral infections or diseases characterized by development of tumours or cell degeneration (e.g. Alzheimer's disease or schizophrenia).

Analysis of the expression of the nucleotides can be used for diagnosis and or programment of these diseases. The nucleotides and polypeptides can also be useful for treating diseases associated with abnormal
                                                                               cytostatic, antiviral, neuroprotective, nootropic, neuroleptic, ss;
primer, probe, tumour suppression, tumour reversion, apoptosis;
virus resistance, transgenic animals, Alzheimer's disease, schizophrenia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acid encoding human prostate membrane-specific antigen, useful e.g. for treatment of tumors and viral infection, also related polypeptide and antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.7%; Score 13.8; DB 1; Length 17;
88.2%; Pred. No. 3.3e+02;
ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumour suppression/reversion associated nucleotide #5546.
                                     Tumour suppression/reversion associated nucleotide #3372.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 17 BP; 4 A; 1 C; 3 G; 9 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 426; 771pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tuijnder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      492 GATCTAATTGGAGATTT 508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GATCTATTTGTAGATTT 17
                                                                                                                                                                                                                                                                                                                                                                                                                      (MOLE-) MOLECULAR ENGINES LAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADB45223 standard; DNA; 17 BP
                                                                                                                                                                                                                                                                                                                             17-SEP-2002; 2002WO-IB004219.
                                                                                                                                                                                                                                                                                                                                                                          17-SEP-2001; 2001FR-00011981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-DEC-2003 (first entry)
04-DEC-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                felerman A, Amson R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-441574/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
nes 15; Conserv
                                                                                                                                                                                                                                            WO2003040369-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           potentially us
expression of
                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                        15-MAY-2003
                                                                                                                                                       diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADB45223;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADB45223
  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
  ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to murine oligonucleotides (ACC62754-ACC68806), which are associated with tumour suppression, tumour reversion, apoptosis and virus resistance. The oligonucleotides are useful as (1) as probes and primers for detecting, identifying, quantifying and/or amplifying nucleic acid, e.g. as one component of a gene chip, in vitro as (anti) sense reagents; and (2) for production of recombinant polypeptides. The oligonucleotides are useful for preparation of pharmaceuticals for prevention and/or treatment of viral diseases that are characterised by development of tumours or cell degeneration, specifically cancer but also Alzheimer's disease and schizophrenia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New isolated nucleic acid, useful for treating viral diseases associated with tumors and cell degeneration, also related polypeptides, antibodies and transfected cells.
                                                                                                                                                                                                                                                                                                                                                                              Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; murine;
                                                                                                                                                                                                                                                                                                                                                                                                   tumour suppression; tumour reversion; apoptosis; virus resistance;
viral disease; tumour; cell degeneration; cancer; Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                  Murine oligonucleotide associated with tumour supression, SEQ ID 3309.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
  ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 13.8; DB 1; Length 17; Pred. No. 3.3e+02; 0; Mismatches 2; Indels
    Indels
    .;
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Seguence 17 BP; 2 A; 5 C; 4 G; 6 T; 0 U; 0 Other;
    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 417; 738pp; French
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tuijnder M;
    ..
0
                                                 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            461 GGAAGAGCTCCAGGAAC 477
                                                                                        17
                                                                                                                                                                                                      ВЪ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADB43049 standard; DNA; 17 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MOLE-) MOLECULAR ENGINES LAB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-SEP-2002; 2002WO-IB004210.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-SEP-2001; 2001FR-00011979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.7%;
ilarity 88.2%;
Conservative
                                                                                                                                                       RESULT 363
ACC66062/c
ID ACC66062 standard; DNA; 17
                                              527 GAGTCAACGCCCTCTTC
                                                                        1 GATCCAACGCCCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAAGACTCCAGGATC
                                                                                                                                                                                                                                                                                             (first entry)
       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Amson R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-333167/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 15; Conserv
```

schizophrenia; ss.

01-JUL-2003

ACC66062;

402003025176-A2. Mus musculus.

relerman A,

ó

18-DEC-2003

ADB43049;

HXXXH

RESULT 364 ADB43049

Best Loca Matches

Tuijnder M;

relerman A, Amson R,

WPI; 2003-441574/41.

(MOLE-) MOLECULAR ENGINES LAB

17-SEP-2002; 2002WO-IB004219. 17-SEP-2001; 2001FR-00011981.

WO2003040369-A2. Homo sapiens.

LS-MAY-2003.

```
The invention relates to the isolation of 6327 nucleotide sequences, fragments of at least 15 consecutive nucleotides of these nucleotides, a sequence having at least 80% identity, after original alignment, with the nucleotides, a sequence that hybridizes under stringent conditions with the nucleotides, or the complement, or corresponding NAM, of the nucleotides are used as probes or primers for detecting, identifying, quantifying and/or amplifying nucleic acids, as in vitro sense and antisense sequences, of nucleotides involved in tumour combinant polypeptides, and to prepare transgenic animals, as exceptions and or viral resistance, to produce recombinant polypeptides, and to prepare transgenic animals, as compinent an oxels. The nucleotides (also vectors containing the vectors), the encoded polypeptides and antibodies (Ab) against the polypeptide are useful for prevention and/or treatment of viral infections or diseases characterized by development of tumours or cell degeneration (e.g. Alzheimer's disease or schizophrenia). Analysis of the expression of the nucleotides can be used for diagnosis also be used to screen for their specific interactive molecules, and solventially useful for treating diseases associated with abnormal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            primer; probe; tumour suppression; tumour reversion; apoptôsis; virus resistance; transgenic animals; Alzheimer's disease; schizophrenia;
                     primer; probe; tumour suppression; tumour reversion; apoptosis; virus resistance; transgenic animals; Alzheimer's disease; schizophrenia;
                                                                                                                                                                                                                                                                                                                                                                                                             New nucleic acid encoding human prostate membrane-specific antigen, useful e.g. for treatment of tumors and viral infection, also related polypeptide and antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cytostatic; antiviral; neuroprotective; nootropic; neuroleptic; ss;
cytostatic; antiviral; neuroprotective; nootropic; neuroleptic; ss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7%; Score 13.8; DB 1; Length 17;
88.2%; Pred. No. 3.3e+02;
rative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumour suppression/reversion associated nucleotide #5389.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 17 BP; 3 A; 8 C; 2 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 680; 771pp; French
                                                                                                                                                                                                                                                                                                                                               Tuijnder M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     685 GATCTGCACACGCTTC 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        expression of the nucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADB45066 standard; DNA; 17 BP.
                                                                                                                                                                                                                                                                                                      (MOLE-) MOLECULAR ENGINES LAB.
                                                                                                                                                                                                                         17-SEP-2002; 2002WO-IB004219.
                                                                                                                                                                                                                                                               17-SEP-2001; 2001FR-00011981.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                               Telerman A, Amson R,
                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-441574/41.
                                                                                                                                         WO2003040369-A2.
                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-DEC-2003
                                                                                                                                                                                15-MAY-2003.
                                                              diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADB45066
```

```
The invention relates to the isolation of 6327 nucleotide sequences, fragments of at least 15 consecutive nucleotides of these nucleotides, a sequence having at least 80% identity, after optimal alignment, with the nucleotides, a sequence that hybridizes under stringent conditions with the nucleotides, or the complement, or corresponding RNA, of the nucleotides. The nucleotides are used as probes or primers for detecting, identifying, quantifying and/or amplifying nucleic acids, as in vitro sense and antisense sequences, of nucleotides involved in tumour suppression or reversion, apoptosis and or viral resistance, to produce recombinant polypeptides, and to preper transgenic animals, as experimental models. The nucleotides (also vectors containing them and cells containing the vectors), the encoded polypeptides and antibodies of viral infections or diseases characterized by development of tumours or cell degeneration (e.g. Alzheimer's disease or schizophrenia).

Analysis of the expression of the nucleotides and polypeptides can also be used to screen for their specific interactive molecules, and also be used to screen for their specific interactive molecules.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                               New nucleic acid encoding human prostate membrane-specific antigen, useful e.g. for treatment of tumors and viral infection, also related polypeptide and antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ss; oligonucleotide hybridisation potential; efficient hybridisation;
large array; minimum oligonucleotide synthesis; rabbit; beta-globin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
1.7%; Score 13.8; DB 1; Length 17;
Best Local Similarity 88.2%; Pred. No. 3.3e+02;
Matches 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rabbit beta-globin fragment derived oligonucleotide #72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 17 BP; 1 A; 10 C; 2 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 662; 771pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  568 GATCCTCGCTGCCTCAC 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   expression of the nucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 chrecreciscorde
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADD81038 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Oryctolagus cuniculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003054346-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADD81038;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADD81038
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
```

.. 0

diagnosis.

ö

Gaps

. 0

preparation of the plasmid pSGE705,

```
for heterologous protein, and chromosomal gene encoding regulator of this unit controlled by strong promoter, provides tight control of expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  animals containing recombinant expression vectors comprising the nucleic acid can be useful in study, development and treatment of migraine, FHM, EA-2 and epilepsy. Proteins or peptides encoded by the nucleic acid and natural or synthetic antibodies against the proteins can be used to diagnose FHM, EA-2, migraine and other neurological conditions associated with cation channel disfunction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New human nucleic acid associated with migraine and episodic ataxia type 2 - useful for diagnosis and development of, e.g. familial hemiplegic migraine and episodic ataxia type 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This primer is used for the PCR amplification of an exon of the human calcium ion channel alpha I subunit. The channel is related to familial hemiplegic migraine (FRM) and/or episodic ataxia type 2 (EA-2) and is derived from, related to or associated with a gene present in humans on chromosome 19p13.1-13.2. The encoding nucleic acid can be used to specifically migraine, FHM or EA-2, but also epilepsy. It can also be used to distinguish between alleles of the corresponding gene. Cells and
                                                                 Prokaryotic cell contg. plasmid including regulatable expression unit -
                                                                                                                                                                                                                       which has the pBR origin of replication, tetracycline resistance gene,
the di-alpha and di-beta globin genes, tac promoter and LacI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Calcium ion channel alphal subunit exon 38 specific forward primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Calcium ion channel alphal subunit; human; episodic ataxia type 2; familial hemiplegic migraine; FHM; EA-2; treatment; diagnosis; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                1.7%; Score 13.8; DB 1; Length 18; 88.2%; Pred. No. 3.6e+02; ative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                           Sequence 18 BP; 3 A; 6 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                    sequence was used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 10; 157pp; English.
                                                                                                                                                          Example 16; Page 39; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                            336 GAGCAACTTGGTGCCAG 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV29451 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                     96EP-00202707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96EP-00202707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 88.2
Matches 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UYLE-) RIJKSUNIV LEIDEN,
                       WPI; 1997-132648/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1998-195461/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-SEP-1996;
                                                                                                                                                                                                       The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EP834561-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV29451;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 369
ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>. . .</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to a method of predicting the potential of oligomucleotides to hybridise to target nucleotide sequences. The method is useful for predicting the potential of a noligomucleotide to hybridise to a target nucleotide sequence, e.g. RNA or DNA or a sequence that contains chemically modified nucleotides. The method is also useful for predicting the potential of the oligomucleotides to hybridise to a complementary target nucleotide sequence. The method is useful to prediction hybridisation oligomucleotides for each of multiple target efficient hybridisation oligomucleotides for each of multiple target minimum synthesis of oligomucleotides. The present sequence represents a rabbit beta-globin derived oligomucleotide sequence.
                                                                                                                                                                                                                                                                                                                              Predicting potential of oligonucleotides to hybridize to target nucleotide sequence comprises determining and evaluating for each oligonucleotide a parameter predictive of the oligonucleotides ability to hybridize with target.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Preparation, construction, plasmid, pSGE705, pBR, globin, replication origin, tetracycline resistance, di-alpha, di-beta, tac promoter, Lacl, polymerase chain reaction, PCR, primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                 Kincaid RH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match 1.7%; Score 13.8; DB 1; Length 17; Local Similarity 88.2%; Pred. No. 3.3e+02; es 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                 Webb PG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 17 BP; 1 A; 1 C; 7 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 1; SEQ ID NO 111; 423pp; English.
                                                                                                                                                                                                                                                 Delenstarr GC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                133 TGTCTGCTTTGGGGGCT 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17
                         15-FEB-2001; 2001US-00784674.
                                                               98US-00021701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96WO-US011600,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 rercrerrrresessar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAT60989/c
ID AAT60989 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                         SHANNON K W.
WOLBER P K.
DELENSTARR G C.
                                                                                                                                                                                                                                                 Wolber PK,
                                                                                                                                                                                                  KINCAID R H.
                                                                                                                                                                                                                                                                                         WPI; 2003-743746/70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  amplification; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Primer for lacI.
                                                                   .0-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9704110-A1
                                                                                                                                                                                                                                                 ₹.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-JUL-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-FEB-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAT60989;
                                                                                                                                (WOLB/)
(DELE/)
(WEBB/)
(KINC/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                 Shannon
                                                                                                                SHAN/)
```

Best Loca Matches

RESULT 368

Weickert MJ, Glascock CB;

(SOMA-) SOMATOGEN INC

14-JUL-1995;

A; 2 C; 2 G; 2 T; 0 U; 0 Other;

Sequence 18 BP; 12

. 0

```
the expression of a target nucleic acid (thA) sequence via binding of the compounds with the tha Sequence. The method comprises generating a library of virtual compounds in silico according to defined criteria, and evaluating in silico the binding of the virtual compounds with the thA cocording to defined criteria. Also described are: (1) a method of defining a set of coligonucleorides (ONS) that modulate the expression of a thA sequence via binding of the ONS with the thA sequence comprising a set of coligonucleorides (ONS) that modulate the expression of a thA sequence via binding of the binding of the virtual compounds in silico the binding of the virtual ONS with the thA according to defined criteria; and evaluating in silico the binding of the virtual ONS with the thA according to defined criteria; and (2) a method of defining a set of compounds that modulate the expression of a method of defining of the compounds with the thA. The methods can be used for the generation and identification of synthetic compounds having defined physical, and identification of synthetic compounds having defined physical, such compounds is used to identife sequence-based technologies, e.g. tractable to a variety of nucleoride sequence-based technologies, ond AAYS2701 to AAXS2701 to AAXS2701 to AAXS2701 to AAXS2701 to AAXS2701 to Expresent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Identifying compounds which modulate expression of nucleic acids, used provide compounds having defined physical, chemical or bioactive properties, e.g. antisense activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sasmor HM, Brooks DG;
                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                              Human ELK-1 phosphorothioate antisense oligonucleotide SEQ ID NO:241
                                                                                                                                                                                                                                                                                                                                                                                                    Identification; genetic target; gene modulation; human; probe; antisense oligonuclectide; phosphorothicate; PCR primer; nuclectide sequence-based technology; antisense drug discovery; target validation; ss.
                                                                                          ..
                                                  1.7%; Score 13.8; DB 1; Length 18;
88.2%; Pred. No. 3.6e+02;
tive 0; Mismatches 2; Indels
                Seguence 18 BP; 4 A; 4 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Freier SM,
Vickers TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 24; Page 105; 264pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LM, Baker BF, Mcneil J, Wyatt JR, Borchers AH,
                                                                                                                                307 TGCATGGGAAAGACTGC 323
                                                                                                                                                                                                                                                                 BP.
                                                                                                                                                                     18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US008268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0081483P.
98US-00067638
                                                                                                                                                           TGCCTGGGAATGACTGC
                                                                                                                                                                                                                                                                 AAZ41089 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                      Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-620446/53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9953101-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-APR-1998;
                                                                                                                                                                                                                                                                                                                                            26-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-OCT-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cowsert L
Ohasi C,
                                                                                                                                                                                                                                                                                                       AAZ41089;
                                                                                                                                                                                                                           XX OS
                                                                                                                                                                   ద
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequences AA206571-206607 are antisense polynucleotides targeted to a nucleic acid molecule encoding human ELK-1 (also known as p627CF). ELK-1 is a member of the ternary complex factor subtamily of Ets-domain transcription factor proteins. The polynucleotides inhibit the expression of human ELK-1 and this sequence targets the 3' untranslated region of human ELK-1 RNA. Sequences AA206571-206607 all cause at least 30% inhibition of ELK-1 expression. The antisense sequences can be used to inhibit the expression of human ELK-1 in human cells or tissues in vitro. ELK-1 uses a bippartite recognition mechanism mediated by both protein-DNA and protein-protein interactions to regulate genes by direct and indirect DNA binding and has been shown to control various signal transduction pathways and other cell functions including apoptoris. This means that antisense compounds inhibiting expression of ELK-1 can be used to treat diseases associated with its expression in animals, particularly humans
                                                                                                                                                                                                                                                                                                           Human ELK-1; p62TCF; Ets domain transcription factor protein; apoptosis;
expression inhibition; infection; inflammation; tumour formation;
diagnosis; phosphorothioate; antisense compound; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag= b
/note= "Optionally 2-methoxyethyl (2'-MOE) nucleosides
except cytosine residues which are 5-methylcytosine"
15. .18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15. .18
/*tag= c
/note= "Optionally 2-methoxyethyl (2'-MOE) nucleosides
except cytosine residues which are 5-methylcytosine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                         1. 18
/*tag= a
/note= "Internucleoside phosphorothioate linkages"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antisense compound useful for diagnosis, treatment and prevention disease associated with ELK-1 expression.
                                  .
0
Score 13.8; DB 1; Length 18;
Pred. No. 3.6e+02;
                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 3; Col 39; 31pp; English.
                                                                                                                                                                                                                                                                                ELK-1 expression modulator #44.
                                                                 935 GTTTTGTTTTATGAGTC 951
                                                                                                                                                                                 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-00213767.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-00213767.
                                                                                                Griritaritaric 2
1.7%;
al Similarity 88.2%;
15; Conservative
                                                                                                                                                                               AAZ06604 standard; DNA; 18
                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-517959/43.
                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                             modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-DEC-1998;
                                                                                                                                                                                                                                             23-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US5948680-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baker BF,
                                                                                                                                                                                                                  AAZ06604;
                                                                                                18
     Query Match
                                                                                                                                             RESULT 371
AAZ06604/c
                    Best Loca
Matches
                                                                                                                                                                                                  ठ
                                                                                                g
```

ц

2 🛂 ...

ö

Gaps . 0

Indels

88.2%; Pred. No. 3.6e+02; ative 0; Mismatches 2;

Best Local Similarity 88.2 Matches 15; Conservative

936

920 CAGCGGGACTTTCAGGT

ò 셤

1 CAGCGGGAGGTTCAGGT 17

ABZ77008 standard; DNA; 18 BP

Query Match

Sequence 18 BP; 3 A; 3 C; 9 G; 3 T; 0 U; 0 Other;

to the HSV-2 genome

ö and to prevent or delay infection, inflammation or tumour formation. The compounds can also be used for diagnosis, as research reagents and in kits Gaps Novel analytical method designated Fine Array Transcript Mapping, us for detecting and measuring RNA molecules transcribed from a genome, differential expression, and sequence mapping. 0; Length 18; Fine array transcript mapping; FAT mapping; FATMap; HSV-2; differential expression; VP16; PCR primer; ss. Indels Sequence 18 BP; 12 A; 2 C; 2 G; 2 T; 0 U; 0 Other; Score 13.8; DB 1; Pred. No. 3.6e+02; 0; Mismatches 2; HSV-2 VP16 gene reverse PCR primer. SMIK) SMITHKLINE BEECHAM CORP. 935 GTTTTGTTTTATGAGTC 951 AAZ57824 standard; DNA; 18 BP. 0 98US-0090464P. 1.7%; ilarity 88.2%; Conservative (99WO-US013813 18 GİTTİĞİTİTATLATİC (first entry) Tal-Singer R; Herpes simplex virus 2. WPI; 2000-147217/13. Query Match Best Local Similarity Matches 15; Conserv WO9967422-A1. 24-JUN-1998; 18-JUN-1999; 11-APR-2000 39-DEC-1999 Leary JJ, AAZ57824; AAZ57824

AAZ57824

XX
AAZ57824

AAZ57824

AAZ57824

AAZ57824

DT 11-APRXX
XX
XX
A Fine as XX
XX
A Fine as XX
XX
B Herpes
XX
B Herpes
XX
B Herpes
XX
B Herpes
XX
B Herpes
XX
B Herpes
XX
B Herpes
XX
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B Herpes
B 88888 ò

Acyl CoA:diacylglycerol transferase; DGAT; enzyme; chromosome 14; bovine; milk; meat marbling; low fat; polymorphic; SNP; single nucleotide polymorphism; PCR primer; ss.

Sovine DGAT PCR primer #44.

(first entry)

07-MAY-2003

ABZ77008;

(ARBE-) ARBEITSGEMEINSCHAFT DEUT RINDERZUECHTER

Fries H, Winter A; WPI; 2003-239205/23

05-JUL-2002; 2002WO-EP007520. 06-JUL-2001; 2001EP-00116412. 13-MAY-2002; 2002US-0379412P

WO2003004630-A2.

Bos taurus Synthetic. 16-JAN-2003

inclusion of the content content of the content content of the content of the content content of the content content of the content content content of the content content of the content content of the content content content of the content content content of the content content content of the content content content of the content content content of the content content content of the content content content of the content content content of the content content content of the content content content of the content content content of the content content content of the content content content content content content content content

This sequence represents a reverse PCR primer targeted at the VP16 gene of herpes simplex virus type 2 (HSV-2) SBS (ATCC WR 2546). It was used for semi-quantitative PCR analysis of SBS cDNA. PCR using the VP16 primer pair generated a 192 bp product, and allowed detection of 1 HSV copy from 45 cycles (or 100 copies from 35 cycles). The invention provides a novel generated and measuring RNA molecules transcribe from a genome, differential expression, and mapping of the 5' sequence of a transcribe. FAT mapping involves probling a test grid containing an array of 100s to 1000s of overlapping semomic clones or DNA fragments with probes consisting of labeled cDNAs representing the RNA transcripts from test populations. The system allows quantitative measurements of the vithin a genomic sequence in a single run. The method can be used to measure the differential expression of transcripts between 2 or more different viral, tissue or cell populations which share a commercipe sequence, or to determine whether a particular open reading frame is expressed under certain conditions. The FATMap technique has been applied

Example 1; Page 16; 53pp; English.

present invention describes a nucleic acid molecule (NA) (I) encoding New nucleic acid molecule comprising a sequence of an allele of a polymorphic bovine acyl CoA-diacylglycerol transferase gene useful for testing a mammal for its predisposition for fat content of milk and for Example 1; Page 36; 91pp; English. meat marbling. invention

Sequence 18 BP; 2 A; 9 C; 3 G; 4 T; 0 U; 0 Other;

ö

Gaps

ô

Score 13.8; DB 1; Length 18; Pred. No. 3.6e+02; 0; Mismatches 2; Indels

633 CAGICCCCCTCCTGCA 649

Query Match
Best Local Similarity 88.2%;
Matches 15; Conservative

Sequence 18 BP; 2 A; 9 C; 3 G; 4 T; 0 U; 0 Other;

ΧS

```
The present invention describes a nucleic acid molecule (NA) (I) encoding a bovine acyl CoA-diacylglycerol transferse (DGAT) contributing to or indicative for low fat content of milk and to low meat marbling cor indicative for low fat content). Human DGAT is located to chromosome 8, and convene bown is located to chromosome 14. (I) is useful for testing a mammal for its predisposition for fat content of milk and/or its cording DGAT for nucleotide polymorphisms (e.g. single nucleotide carding DGAT for nucleotide polymorphisms (e.g. single nucleotide polymorphisms (superconnected with the predisposition. The cucleotide polymorphisms are located in the coding region of the DGAT card sequence of the polypeptide which is encoded by the gene. The cucleic acid molecule has at the position 10433 and 10434 of the DGAT gene a guanine and a cytosine residue, at position 3343 a cytosine or cucleic acid molecule has at the position 10433 and 10434 of the DGAT gene a guanine, illow meat marbling. The nucleic acid molecule has a cytosine or thymine, which correlate with a predisposition for low fat content of milk and low meat marbling. The nucleic acid molecule has at the position corresponding to position 10433 and 10434 of the DGAT gene two adenine cresidues which correlate with a predisposition for high content of milk cand high meat marbling. The nucleicade polymorphisms are located in a region which is responsible for the regulation of the expression of the product of the gene encoding DGAT. ABZ76924 to ABZ70945 and ABP96035 to invention
                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Acyl CoA:diacylglycerol transferase; DGAT; enzyme; chromosome 14; bovine; milk; meat marbling; low fat; polymorphic; SNP; single nucleotide polymorphism; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New nucleic acid molecule comprising a sequence of an allele of a polymorphic bovine acyl CoA-diacylglycerol transferase gene useful for testing a mammal for its predisposition for fat content of milk and for meat marbling.
                                                                                                 Gaps
                                                                                             0
                            Length 18;
                            Score 13.8; DB 1; Length 1
Pred. No. 3.6e+02;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ARBE-) ARBEITSGEMEINSCHAFT DEUT RINDERZUECHTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bovine DGAT BAC-DNA sequencing primer #25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1; Page 35; 91pp; English.
                                                                                             0;
                                                                                                                                                                     649
                                                                                                                                                                                                                                  cagrecrecrecreca 17
                                                                                                                                                                                                                                                                                                                                                                                                            ВÞ
                                    1.7%;
88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUL-2002; 2002WO-EP007520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-JUL-2001; 2001EP-00116412.
13-MAY-2002; 2002US-0379412P.
                                                                                                                                                                     633 CAGTCCCGCTCCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                            ABZ76952 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                        Conservative
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-239205/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fries H, Winter A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO2003004630-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bos taurus.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABZ76952;
                                                                                                                                                                                                                                                                                                                                           ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH 3

ABENCH
                                                                                                                                                                                                                                  g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to a method of producing genetically modified or transformed plants which are resistant to pathogens. The plants are transformed with a recombinant vector comprising a Brassica junca chitinase (BjCHI) encoding polymucleotide sequence and a Hevea sp. beta-1,3 glucanase (HbGlu) encoding polymucleotide sequence. The method is useful for producing transganic plants which are resistant to pathogens, and especially resistance to fungal diseases. The present sequence represents a PCR primer used in the examples of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Producing plants e.g., potato, resistant to pathogens e.g., fungi, by transforming plants with recombinant vector that co-expresses Brassica juncea chitinase with two chitin-binding domains, and Hevea beta-1,3-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                           Genetically modified plant; transformed plant; pathogen resistance;
Brassica juncea chitinase; BjCHI; transgenic; fungal disease; PCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.7%; Score 13.8; DB 1; Length 18; 88.2%; Pred. No. 3.6e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                               PCR primer #2 used to amplify Arabidopsis chitinase DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 18 BP; 5 A; 9 C; 2 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example; Page 12; 37pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600 TGGCGGGTGGACGTGGC 616
                                                                                               멾
               CAGTCCTGCTCCTCCA 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17 TGGAGTGTGGACGTGGC 1
                                                                                                                                                                                                                                                                                                                                                         20-NOV-2002; 2002US-00300819.
                                                                                                                                                                                                                                                                                                                                                                                    20-NOV-2001; 2001US-0331749P
                                                                                                ADC29750 standard; DNA; 18
                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-765534/72.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
ses 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                               (CHYE/) CHYE M L. (ZHAO/) ZHAO K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chye ML, Zhao K;
                                                                                                                                                                                                                                                                                                 US2003097682-A1
                                                                                                                                                                                                                                                                         gb.
                                                                                                                                                       18-DEC-2003
                                                                                                                                                                                                                                                                      Arabidopsis
                                                                                                                                                                                                                                                                                                                              22-MAY-2003.
                                                                                                                                                                                                                                            primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            glucanase.
                         Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                            ADC29750;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 376
AAT65904/c
                                                                  RESULT 375
ADC29750/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loc
Matches
                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
상 . 원
```

```
Example 8; Page 57; 111pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             552 GTAGCCCAACAGCAGGG 568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAZ72847 standard; DNA; 19 BP.
                                                                                                                                                                                                                           Cui Z;
                                                                                                                              99WO-US018463
                                                                                                                                                            98US-00146218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTAGCCCAGCAGCCGGG 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0082614P.
98US-0109732P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-IB000822
   diagnosis; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 88.2
Matches 15, Conservative
                                                                                                                                                                                                                         Walkey CJ,
                                                                                                                                                                                                                                                         WPI; 2000-256956/22.
                                                              WO200014198-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GEST ) GENSET
                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  diagnosis; ss
                                                                                                                            13-AUG-1999;
                                                                                                                                                           02-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9954500-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-NOV-1998;
                                                                                              16-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-OCT-1999
                                                                                                                                                                                                                           Vance DE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAZ72847;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 378
   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to the isolation of polymorphic repeat sequences having the sequence (dC-dA)n.(dG-dT)n which can be used as genetic markers. Primers based on these sequences can be used to detect these repeats, especially for use in e.g paternity or maternity testing, human genetic analysis such as linkage analysis of genetic disease, commercial animal or plant breeding or pedigree analysis. Clones containing the repeat sequences were isolated by hybridisation of chromosome-specific phage libraries with a synthetic poly(dC-dA).(dG-dT) probe. Over 100 repeat locks were isolated. The primers AAT65798-T66047 were used to PCR amplify the inserts from the isolated clones containing the repeat
                                                                                                                                          Polymorphism; repeat sequence; genetic marker; primer; amplification; PCR; Polymerase Chain reaction; paternity; maternity; human; pedigree; linkage analysis; genetic disease; animal; plant; breeding; locus; hybridisation; chromosome; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Detection of polymorphic genetic markers of the form (dG-dA)\,n\,(dG-dT)\,n using novel nucleic acid mols. as primers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence marker clone Mfd54. (Updated on 25-MAR-2003 to correct PF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Phosphatidylethanolamine N-methyltransferase-2; PEMT2; human; liver cancer; hepatoma; antitumour; antiproliferative; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 13.8; DB 1; Length 19;
Pred. No. 3.9e+02;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequences. The primers AAT65904-5 were used to amplify
                                                                                                           Primer #1 to amplify repeat sequence marker Mfd54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19 BP; 4 A; 4 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Col 11-12; 186pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                350 CAGCGCCAACCTGTCAG 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ВР
                                                                                                                                                                                                                                                                                                                      94US-00222177.
                                                                                                                                                                                                                                                                                                                                                  89US-00341562
91US-00754351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 1.7%;
Best Local Similarity 88.2%;
Matches 15; Conservative
standard; DNA; 19
                                                            (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17 CAGCCTCAACCTGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAZ94157 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                (MARS-) MARSHFIELD CLINIC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1997-042299/04
                                                                                                                                                                                                                                                                                                                    04-APR-1994;
                                                                                                                                                                                                                                                                                                                                                  21-APR-1989;
05-SEP-1991;
                                                            25-MAR-2003
18-JUN-1997
                                                                                                                                                                                                                                                      JS5582979-A
                                                                                                                                                                                                                                                                                      10-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human PEMT2
                                                                                                                                                                                                                         Synthetic
                              AAT65904;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Weber JL;
AAT65904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ94157;
```

RESULT 377

g ò

AAZ94157/ ID AAZ9 XX AC AAZ9 XX DT 19-J XX XX XX EW Phost XW Phost XW Phost

```
The present sequence is that of a primer used in the PCR amplification of the open reading frame of a cDNA clone (see AA294150) encoding human phosphatidylethanolamine N-methyltransferase-2 (PBMT-2. see AAY79199). The PCR product was subcloned into mammalian expression vector pCI, and PEMT-2 was expressed in rat hepatoma McArdle-RH7777 cells. The invention ratides to novel human PEMT2 polynucleotides and protein (see AAY79199), and to methods of using them in the treatment and diagnosis of liver disorders, such as liver cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                      żż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human biallelic marker upstream amplification primer SEQ ID NO:7203
                                                                                                                                                                                                                                                                                           Isolated nucleic acid molecule encoding phosphatidylethanolamine methyltransferase protein used to treat phosphatidylethanolamine methyltransferase-associated disorders such as liver cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human genome, biallelic marker; high density disequilibrium map; genomic map; haplotype; phenotype; polymorphic base; genotyping; haplotyping; hybridisation; identification; characterisation; amplification; single nucleotide polymorphism; SNP; PCR primer; amplification; single nucleotide polymorphism; SNP; PCR primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.7%; Score 13.8; DB 1; Length 19; 88.2%; Pred. No. 3.9e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 19 BP; 2 A; 7 C; 7 G; 3 T; 0 U; 0 Other;
(RESE ) RESEARCH CORP TECHNOLOGIES INC.
```

ö

```
.
0
                                                                                                                                              AAZ65654 to AAZ69578 represent human biallelic markers from the present invention, which contain a polymorphic base at position 24 of their nucleotide sequences. AAZ69579 to AAZ77440 represent amplification primers for the biallelic markers. The biallelic markers of the invention have a variety of uses: they can be used for high density mapping of the human genome, and in complex association studies and haplotyping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agents methods, as well as the characterisation of the differential efficacious responses to and side effects from pharmaceutical agents acting on a disease as well as other treatment. N.B. The SEQ ID NOS 2852, 2913, 2974, 3035, 3066, 3157, 3227, 3297 and 3367, are not actually given a sequence in the Sequence bisting from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel biallelic markers used to construct a high density disequilibrium
                                                                biallelic markers used to construct a high density disequilibrium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human biallelic marker downstream amplification primer SEQ ID NO:10360.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human genome, biallelic marker, high density disequilibrium map, genomic map, haplotype, phenotype, polymorphic base; genotyping, haplotyping, identification; characterisation, anplification, single nucleotide polymorphism; SNP; PCR primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.7%; Score 13.8; DB 1; Length 19; 88.2%; Pred. No. 3.9e+02; 1ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 19 BP; 10 A; 0 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chumakov I;
 Chumakov I;
                                                                                                                   Claim 9; Page 1766; 2745pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 9; Page 2439; 2745pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  767 AGAACTGGAGAAGAAGT 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAGTGGAGAAAGT 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ76004 standard; DNA; 19 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0082614P.
98US-0109732P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-IB000822.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Query Match
Best Local Similarity 88.23,
Best Local 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cohen D, Blumenfeld M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      map of the human genome.
Cohen D, Blumenfeld M,
                                                                                  map of the human genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-013267/01
                              WPI; 2000-013267/01
                                                                                                                                                                                                                                                                                                                                                                                            present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diagnosis; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-APR-1998;
23-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9954500-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-OCT-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ76004;
                                                                  Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This invention relates to a method of detecting the onset or presence of sporadic basal cell carcinoma (BCC) in an animal. The method involves measuring the level of Gili in a sample of skin. Gili levels above basal or normal indicate the presence or onset of sporadic basal carcinoma. Gili is a zinc finger transcription factor down stream of secreted sonic hedgehog (shh) activation in a cascade of cytoplasmic signal transduction. Gili in turn can induce shh expression in an auto regulatory manner. There are links between ectopic expression in an auto gene and the development or onset of BCC. The method is useful for detecting the onset or presence of sporadic basal cell carcinoma,
        AAZ65654 to AAZ69578 represent human biallelic markers from the present invention, which contain a polymorphic base at postion 24 of their nucleotide sequences. AAZ69579 to AAZ7440 represent amplification primers for the biallelic markers. The biallelic markers of the invention bave a variety of uses: they can be used for high density mapping of the human genome, and in complex association studies and haplotyping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agents and diagnostic methods, as well as the characterisation of the pharmaceutical agents acting on a disease as well as other treatment. N.B. The SRQ ID NOS 2852, 2913, 2974, 3035, 3056, 3157, 3227, 3297 and 3367, are not actually given a sequence in the Sequence Listing from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Detecting the onset or presence of skin cancer, particularly sporadic basal cell carcinoma, comprises measuring the level of Glil in the sample.
                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCR primer Shh-U2 specific for human secreted sonic hedgehog cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sporadic basal cell carcinoma; BCC; detection, Glil; skin cancer; transcription factor; PCR primer; human; ss; sonic hedgehog; shh.
                                                                                                                                                                                                                                                                                                                                                                                                                       ·,
                                                                                                                                                                                                                                                                                                                                                                              1.7%; Score 13.8; DB 1; Length 19; 88.2%; Pred. No. 3.9e+02; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                         Sequence 19 BP; 6 A; 9 C; 0 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Col 8; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ccarcraaccarcacr 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-00102491.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (UYNY ) UNIV NEW YORK STATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  616 CCATCTCAACCAGCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAH45473 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                  Query Match 1.7
Best Local Similarity 88.2
Matches 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-366473/38.
                                                                                                                                                                                                                                                                                                  present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-MAY-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Altaba ARI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAH45473;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH45473
x
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
```

```
462 GAAGAGCTCCAGGAACT 478
                                                             RESULT 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 383
                                                                           ADE06873
  ò
                      셤
                                                                                       ð
                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This invention relates to a novel method for the detection, treatment and/ or prevention of cellular debilitations or derangements caused by the development of sporadic basal cell carcinoma (BCC). Specifically, it refers to the identification of relevant therapeutic agents based on their effect on the expression level and activity of the Glil expressed in epidermal tissue and is linked to tumour formation and neoplasia. The present invention describes cytostatic Glil inhibitors that are useful for detecting the onset or presence of sporadic BCC in an animal. Furthermore, it includes methods for testing the ability of a ning or other entity to endulate the activity of Glil. This oligonacleotide sequence is the RT-PCR primer Shh-UZ used to amplify human Shh (secreted sonic hedgehog) RNA of the invention.
particularly in detecting skin cancer. The present sequence represents a PCR primer specific for human Shh cDNA. The primer is used in the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Preventing or treating sporadic basal cell carcinoma by administering an inhibitor of glioma transcription factor-1 (Gli1) activity or expression, and diagnosis of the disease by detecting the presence and level of expression of Gli1.
                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                  RT-PCR, primer, Shh-U2, human, ss, PCR, cellular debilitation,
sporadic basal cell carcinoma, BCC, Glil, proto-oncogene,
tumour formation, neoplasia, cytostatic, secreted sonic hedgehog.
                                                                                                   .;
0
                                                                         1.7%; Score 13.8; DB 1; Length 19; 88.2%; Pred. No. 3.9e+02; Ve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.7%; Score 13.8; DB 1; Length 19;
88.2%; Pred. No. 3.9e+02;
ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                            RT-PCR primer Shh-U2 used to amplify human Shh RNA.
                                                  Sequence 19 BP; 7 A; 6 C; 3 G; 3 T; 0 U; 0 Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 19 BP; 7 A; 6 C; 3 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; SEQ ID NO 5; 22pp; English.
                                                                                                                            462 GAAGAGCTCCAGGAACT 478
                                                                                                                                                    1 GAAGATCTCCAGAACT 17
                                                                                                                                                                                                                  ADD15350 standard; DNA; 19 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97US-0050286P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-00102491
                                                                                                                                                                                                                                                                                                                                                                                                                                               03-APR-2001; 2001US-00825155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 88.2%;
nes 15, Conservative
                                                                                     88.2%;
                                                                                                                                                                                                                                                                  (first entry)
                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ARI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-787019/74.
                                                                                       Local Similarity
Les 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                             JS2003100032-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALTA/) ALTABA
                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-JUN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-JUN-1998;
                                                                                                                                                                                                                                                                  15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                       29-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Altaba ARI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S:
Matches 15,
                                                                                                                                                                                                                                          ADD15350;
                                                                            Query Match
                                                                                                   Matches
                                                                                                                                                                                        RESULT 381
                                                                                                                                                                                                    ឧឧឧ
                                                                                                                             ò
                                                                                                                                                셤
```

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a method of in vitro detection of cancer tumor cells, in a biological sample, where allelic imbalances are highlighted in insertion-deletion chromosome markers. The markers are given a quantitative multiplex amplification by polymerase chain reaction a triggered by heat. A calculation is made of a global statistical score triggered by heat. A calculation is made of a global statistical score threshold. The technique is especially for the detection of bladder tumor cells in a urine sample, using a blood sample as the reference. The non-invasive method gives evidence of an allelic imbalance with at least 15 or at least 40 markers. This sequence represents a primer used in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in vitro detection; cancer; tumor cell; allelic imbalance; chromosome marker; quantitative multiplex amplification; bladder tumor; urine; blood; primer; ss; chromosome 2q; chromosome 3p; chromosome 4p; chromosome 4q; chromosome 6q; chromosome 6p; chromosome 9p; chromosome 9p; chromosome 9p; chromosome 1lq; chromosome 1lq; chromosome 1lq; chromosome 1lq; chromosome 1lq; chromosome 1lq; chromosome 1lq; chromosome 1lq; chromosome 1lq; chromosome 1lq;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                In vitro detection of tumor cells, in a biological sample, uses a highlight of allelic imbalance in insertion-deletion chromosome markers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.7%; Score 13.8; DB 1; Length 19;
38.2%; Pred. No. 3.9e+02;
[ve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                       Cancer-related allelic imbalance detection primer #96.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 19 BP; 3 A; 3 C; 8 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ASSI-) ASSISTANCE PUBLIQUE HOPITAUX PARIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 15; SEQ ID NO 96; 51pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           517
                       17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAQ55825 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-FEB-2003; 2003WO-FR000609.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-FEB-2002; 2002FR-00002380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 88.2%;
Matches 15; Conservative
GAAGATCTCCAGAAACT
                                                                                                                                                                                                                 ADE06873 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           501 GGAGATTTGGCCAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGTGTGGCCAGTTT
                                                                                                                                                                                                                                                                                                                                                            29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Grandchamp B, Mentre F;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-697769/66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2003072823-A2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                        ADE06873;
```

AAQ55825;

ö

Gaps

ô

```
Primers T41001-T41382 are derived from novel human gene signature (GS) sequences which did not match with sequences deposited in Genbank release 76. The GS sequences (T19001-T26837) were obtained from 3 -directed cDNA libraries prepared from various human tissues; synthesis of cDNA was initiated from the 3'-end of mRNA by using poly(T) as the sole primer. Bach library is constructed so as to reflect accurately the relative abundance of different mRNAs in the particular tissue from which it was determined (esp. using primers and probes derived from the GS sequences) as a means of diagnosing abnormal cell function or for recognising different cell types. The primers T41307-8 amplify clone pm2824 which comprises the GS HUMGS001009 (T20009), located on chromosomes 19 and 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The method aims to provide a collection of highly reproducible microsatellite marker sequences (MMS) at approx. 10-50 cM intervals throughout the human genome which can be detectably labelled. The MMS are
                                           Single-stranded DNA for identifying gene signatures - isolated from 3'-directed human cDNA library that reflects relative abundance of corresp.mRNA in specific human tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kit for automated genotyping contg. pairs of PCR primers - designed to amplify polymorphic nucleotide repeat sequences, arranged in sets each with a characteristic fluorescence label, useful e.g. in detection of
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               primer; polymerase chain reaction; PCR; linkage study; locus; microsatellite marker sequence; automated genotyping; allele; polymorphism; detection; Homo sapiens; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                       1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Primer B (Group 5, set B) for marker D4S403, chromosome 4.
                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 4 A; 8 C; 1 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disease related genetic rearrangement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure, Fig 7E-3; 104pp; English.
                                                                                                                        Example 7; Fig 9; 2245pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  911 GTGAAAGACAGCGGGA 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93US-00160837.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94WO-US013945.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ95627 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGAATAGACAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SNING HOPKING (UYJO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 88.2
Matches 15; Conservative
                WPI; 1995-206931/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1995-215278/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9515400-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-DEC-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-DEC-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-JUN-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ95627;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 385
AAQ95627/c
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                         Detection of type C hepatitis virus - using one step DNA polymerase chain reaction with mixed primer set.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The primers (AAQ55811-841) are used to detect various types of hepatitis C virus. The primers are made from oligo DNA fragments selected from specific hepatitis C virus subtypes. The primers can be used to in a one step PCR reaction which can determine the subtypes of a large number of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gene signature; messenger RNA; mRNA; relative abundance; frequency; human; cloning; mapping; non-biased library; diagnosis; detection; cell typing; abnormal cell function; primer; PCR; amplification; polymerase chain reaction; se.
                                                                                      PCR; mixer primer set;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.7%; Score 13.8; DB 1; Length 20;
88.2%; Pred. No. 4.2e+02;
vative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human gene signature HUMGS01009-derived sense primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 1 A; 10 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                      HCV, hepatitis C virus; detection; primer; PCR
polymerase chain reaction; DNA polymerase; ss.
                                                  HCV detection primer (DNA type 2 S63)
                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 2; Page 2; 7pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 632 TCAGTCCCGCTCCTGC 648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВР.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 TCAGGCCTGCTCCCTGC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94WO-JP001916.
                                                                                                                                                                                                                                                   92JP-00168226.
                                                                                                                                                                                                                                                                                   92JP-00168226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93JP-00355504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT41307 standard; DNA; 20
                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-DEC-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Okubo K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MATS/) MATSUBARA K. (OKUB/) OKUBO K.
                                                                                                                                                                                                                                                                                                                                                         WPI; 1994-037380/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                     (SAYA/) SAYAMA K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9514772-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-NOV-1993;
                21-JUL-1994
                                                                                                                                                                             JP05337000-A.
                                                                                                                                                                                                                                                                                   04-JUN-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matsubara K,
                                                                                                                                                                                                                                                 04-JUN-1992;
                                                                                                                                                                                                               21-DEC-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-1995
                                                                                                                                           Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT41307;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 384
```

à

.

88999999998888

ઠ્ઠ

```
1.7%; Score 13.8; DB 1; Length 20;
                                                                                        Sequence 20 BP; 3 A; 8 C; 2 G; 7 T; 0 U; 0 Other;
                                                                                             Query Match
```

AAV18288 standard; DNA; 20 BP.

```
polymorphic, simple sequence repeats and can be used in automated genotyping. esp. fluorescence-based. The primers correspond to the unique DNA sequence surrounding each marker, and PCR is used to detect each polymorphism. When the MMS show considerable polymorphism (ie. a difference in the number of repeats) between individuals, the markers can be particularly informative. The MMS can be ideal for linkage studies. Kits comprise at least 4 groups, of at least 3 sets, each comprise labelled primers for PCR amplification of the DNA. Group 5 primer pairs are shown in AAQ95591-638. The published size range of the D45403 allele is 155-169 bp, and the degree of heteroxygosity in the population is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAT34673-T34684 are PCR primers used for the amplification of a 5' untranslated fragment of the the human cytochrome P4501A2 gene including base -1569. They are used in a method for detecting cytochrome P4501A2 gene polymorphism, in partic. for detecting cytochrome P4501A2 position -1569 and may be used with primers for the detection of a T to 6 base substitution at position 2064 and a C to A substitution at position and a C to A substitution at position and a C to A substitution at position and a C to A substitution at position and a couracy. Polymorphisms in the P4501A2 gene can lead to a modification of metabolism which may be beneficial or deleterious
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Detection of human cytochrome p4501A2 gene polymorphism - useful in gene diagnosis of metabolic activity polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cytochrome P450; detection, diagnosis; polymorphism; substitution; metabolism; respiration; polymerase chain reaction; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human cytochrome P4501A2 (CYPIA2) gene 5' UTR fragment PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Match 1.7%; Score 13.8; DB 1; Length 20; Local Similarity 88.2%; Pred. No. 4.2e+02; les 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20 BP; 7 A; 7 C; 1 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kinosita M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; Page 9; 23pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               933 AGGITTIGITITATGAG 949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGITITICAGITATICAG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95WO-JP001352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94JP-00154571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SAKA ) OTSUKA PHARM CO LID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAT34677 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Katsuragi K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1996-087678/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KIM S.
SHIN K.
SHIN J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               )6-JUL-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-JAN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAT34677;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fukui T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (KIMS/)
(SHIN/)
(SHIN/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT34677/
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCR primers AAV10006-07 were used to amplify the upstraem region of DNA encoding a Haemophilus influenzae protein designated Nuca. The probes are based on the N-terminal sequence of the NucA protein. The NucA protein is present in very small amounts on the cell surface of H. influenzae. It is a membrane associated protein that was found to be highly conserved among all the H. influenzae strains tested. The NucA protein has 5'-nucleosidase activity which is inhibited by an anti-native NucA monoclonal antibody. The NucA protein can be used in production of vaccines for immunisation of a mammalian host against H. influenza, especially otitis media and pneumonia. The nucleic acid can be used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       generate probes for detection of H. influenza or H. influenza type b (Hib) in the diagnosis of meningitis, otitis media or pneumonia caused Hib or non-typable H. influenza (NTHi)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic Acid encoding NucA protein from Haemophilus influenza - useful for, e.g. diagnosing and immunising against otitis media or pneumonia.
                                                                                                                                                                                                                                                                 Primer 4122ext used to amplify DNA encoding a protein designated NucA.
                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                             NucA; membrane associated protein; 5'-nucleosidase activity; vacimmunisation; otitis media; pneumonia; H. influenza type b; Hib; diagnosis; meningitis; PCR primer; ss.
                   ó,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; ive 0; Mismatches 2; Indels
                   Indels
 88.2%; Pred. No. 4.2e+02;
tive 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 5 A; 7 C; 4 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 2; Page 30; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            692
                                                    948 AGTCAACAGCTGGGCAG 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13
                                                                                                                                                                   AAV10007 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                 AGTCAAGAGCTGGGTAG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97WO-US012790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96US-0022619P.
96US-00687865.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AMCY ) AMERICAN CYANAMID CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            676 TCACAGATGGATCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 reacagergearcreea
                                                                                                                                                                                                                                  09-JUL-1998 (first entry)
                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jones KF,
                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
Haemophilus influenzae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1998-130691/12.
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
nes 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zagursky RJ,
                                                                                                                                                                                                                                                                                                                                                                                                                   WO9804703-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-JUL-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-JUL-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-FEB-1998,
                                                                                                                                                                                                    AAV10007;
                                                                                   17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                     RESULT 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 388
                                                                                                                                                   AAV10007
                                                    ò
                                                                                 엄
                                                                                                                                                                   ð
```

```
27-NOV-1998;
                                                                                        14-APR-1997;
                                                                    14-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        409928475-A2
                              409846272-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                       615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAZ01532;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ01532,
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                     AAV18281-V18325 are PCR primers used in the amplification of measles virus L protein. This protein is used in a method which involves the isolation of recombinantly-generated, attenuated, non-segmented, negative sense, single stranded RNA virus of the order Mononegavirales which have at least 1 attenuating mutation in the 3' genomic promoter region and at least 1 attenuating mutation in the RNA polymerase gene. This RNA virus can be used as a vaccine to immunise an individual against such a virus
                                                                                                                                                                                                                                                                                  Recombinantly-generated, attenuated, non-segmented, negative-sense, single stranded RNA virus of order Monoegavirales - having attenuating mutation in 3' genomic promoter region and RNA polymerase gene, useful as vacchne to immunise against such virus.
                                                                    L protein; attenuation; non-segmented; negative sense; vaccine; immunity; single stranded RNA virus; Mononegavirales; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rat; c-fos; c-jun; activating protein 1; AP-1; diagnosis; metastasis; antisense oligonucleotide; phosphorothioate; regulation; malignant tumour; cell cycle expression; hyperproliferative disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Indels
                                                                                                                                                                                                                                             Randolph VB;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 5 A; 5 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rat c-Fos protein antisense oligonucleotide #99.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                             Murphy BR,
                                                                                                                                                                                                               (AMCY ) AMERICAN CYANAMID CO.
(USSH ) US DEPT HEALTH & HUMAN SERVICES
                                                  Measles virus L protein PCR primer #8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                      Example 1; Page 52; 426pp; English.
                                                                                                                                                                                                                                             Tatem JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    326 AGAAGCTGTGGAGCAAC 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                        97WO-US016718.
                                                                                                                                                                                           96US-0026823P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 AGAGCTGTGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAV70045 standard; DNA; 20
                              13-OCT-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 88.4.
Best Local Similarity
Local 15; Conservative
                                                                                                                                                                                                                                             Udem SA, Sidhu MS,
                                                                                                                                                                                                                                                                WPI; 1998-230710/20
                                                                                                 Synthetic.
Measles virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Key
modified_base
                                                                                                                                                                       19-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-FEB-1999
                                                                                                                                WO9813501-A2
                                                                                                                                                    02-APR-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus sp.
           AAV18288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV70045;
```

```
APV70042 to AAV70052 represent antisense oligomucleotides which are specifically hybridisable with a region of a nucleic acid encoding rat clos protein. The antisense compound regulates the expression of the c-Fos protein. The present invention also describes antisense oligonucleotides which regulate the c-Un protein. The antisense oligonucleotides are used for the diagnosis and treatment of diseases or disorders associated with the antisense oligonucleotides are used in compositions as c-Fos and/or c-Jun together with a carrier and a chemotherapeutic agent. They are used to regulate the expression of c-Fos or c-Jun in cells or tissues, preferably by inhibiting metastasis. They also regulate cell cycle expression and can be used to treat an animal with, or being prone to, a hyperproliferative disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antisense oligonucleotides regulating Activating Protein 1 subunits - hybridise with c-fos and c-jun mRNA, used for regulating metastasis, cell cycle expression and hyperproliferative disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Vaccine, eye disease; conventional trachoma, nonendemic trachoma; paratrachoma; inclusion conjunctivits; genital disease; perihepatitis; nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer; bartholinitis; pneumopathy; veneraal lymphogranulomatosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCR primer used to amplify an ORF of Chlamydia trachomatis.
/*tag= a
/note= "phosphorothioate linkages"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seguence 20 BP; 2 A; 2 C; 11 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Baker B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 9; Page 57; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dean NM, Mckay R, Miraglia L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCATCTCAACCAGCGC 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-IB001939.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97FR-00015041.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N
                                                                                                                                                                                                                                                     98WO-US007386
                                                                                                                                                                                                                                                                                                                            97US-00837201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .532/c
AAZ01532 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCATCTCCACCAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                       (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1998-609906/51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-OCT-1999
```

yi.

ö

```
Disclosure; Page 1499; 1755pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 1; Page 51; 171pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Randolph VB,
                                                                                                                                                                                                                                                                                                                             766 CAGAACTGGAGAAGAAG 782
                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ22922 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US006225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0079466P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (AMCY ) AMERICAN CYANAMID CO
                                                                                                                                                                                                                                                                                                                                                   CAGAACTCGAGCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sidhu MS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-580441/49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
Measles virus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9949017-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ22922;
                                                                                                                                                                                                       diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Udem SA,
                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 392
AAZ22922
XX0000000000000X8
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                               (ORFS) of the genome of Chlamydia trachomatis (see AA201425). These ORFs encode polypeptides (see AA336754-Y37949) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microoraganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis; genital diseases such as nongonococal uretritis, epidamitis, cervicitis, salpingitis, perihepatitis, bathblinitis, pneumopathy in breast feeding infants; and veneral lymphogranulomatosis. The polypeptides of the invention may be of use in treating these
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vaccine, eye disease; conventional trachoma, nonendemic trachoma; paratrachoma; inclusion conjunctivits; genital disease; perihepatitis; nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer; bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                     PCR primers AAZ01426-Z06209 were used to amplify open reading frames
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                     1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR primer used to amplify an ORF of Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 5 A; 9 C; 2 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genome sequence of Chlamydia trachomatis.
                                                                                                                                        Genome sequence of Chlamydia trachomatis
                                                                                                                                                                       Disclosure; Page 1450; 1755pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВР.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97FR-00015041.
97FR-00016034.
98US-0107077P.
 97FR-00016034.
98US-0107077P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-IB001939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  821 TGTGGGTGCTGAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17 readdcadcreaagcre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ02133 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 88.2
Les 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-371125/31.
                                                                                                          WPI; 1999-371125/31.
                                              (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GEST ) GENSET
 17-DEC-1997;
04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-DEC-1997;
04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9928475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-0CT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-JUN-1999
                                                                             Griffais R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Griffais R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ02133;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 391
```

AAZ02133,

ð

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention provides isolated, recombinantly-generated, attenuated measles virus (I) and human respiratory syncytial virus (RSV) subgroup B (II). The attenuated measles virus has at least 1 of the following attenuating mucations: (1) in the N gene, at residue Glui29Ly6, Glui48Gly or Ser479Thr; (2) in the P gene, at residues Glui25Gly, Cys275Tyr or Ser134Tyr; or (4) at the P gene-end signal, at nucleotide Thr7243ys. The attenuated RSV has an attenuation in the M gene-end signal comprising Thr4199Cys. (1) is useful as a vaccine for immunizing against measles. (II) is useful as a vaccine for immunizing against or subgroup B. Compositions comprising transcriptional vector comprising an isolated nucleic acid molecule encoding a genome or
PCR primers AAZ01426-Z06209 were used to amplify open reading frames (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs encode polypeptides (see AAX36754-Y37949) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis; genital diseases such as nongonococcal uretritis, englydmitis, cervicitis, salpingitis, perihepatitis, bartholinitis; pneumopathy in breast feeding infants; and venereal lymphogranulomatosis. The polypeptides of the invention may be of use in treating these
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Measles virus; attenuated; human respiratory syncytial virus; RSV; mutation; vaccine; immunization; measles; RSV subgroup B; RT-PCR; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New vaccines for measles and respiratory syncytial virus (RSV).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seguence 20 BP; 1 A; 5 C; 5 G; 9 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Buonagurio DA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Primer specific for measles virus L gene.
```

ö

Gaps

.; 0

Pred. No. 4.2e+02; 0; Mismatches 2; Indels

647 GCAACCGAGTGTTCTCA 663 GCAACCGAGCGTTCTGA 18

à

Best Local Similarity 88.2%; Matches 15; Conservative

Plant somatic tissue degeneration; plant essential factor; depletion; viability; cyto gene; plant development; plant morphology; flower; fruit plant; PCR primer; ss.

99WO-IL000420.

40200007427-A2.

Unidentified

NPTII direct primer for streptavidin expressing plant tissues.

(first entry)

06-JUN-2000 AAZ91088;

ВЪ

AAZ91088 standard; DNA; 20

RESULT 394 AAZ91088

```
protein HSP60a gene sequence. The PCR product can be used in the method of the invention, for identifying or characterising clones of an expression library where the clone are arranged in array form. The method for identifying and or characterising clones of an expression library where the clone are arranged in array form. The method for identifying and or characterising clones of an expression library where the clones becaperty comprises: (a) analysing for the expression of at least one (poly)peptide expressed as a fusion protein having an expression product of a recombinant insert of a clone of the library, the clones being in an array, and/or (b) contacting a ligand that specifically interacts with a (poly)peptide expressed by the insert of a clone conferring the desired biological property with the library in arrayed from and analysing for an interaction, and/or (c) carrying out hybridization or an oligonucleotide fingerprint with a nucleic acid probe specific for the insert of a clone conferring the desired biological property with the library in arrayed form, and (a) identifying and/or characterizing clones where expression at step an interaction at step (b) and/or characterizing clones where expression at step an interaction at step (b) and/or characterizing chones where expression at step an interaction at step (c) is detected
                                                                                                                                                                                                                                  ö
antigenome of (I) or (II), are useful for producing infectious attenuated measles virus or RSV subgroup B virus. Current vaccines for measles and RSV do not provide 100 % protection, and only give short-lived immunity. Other vaccines give unfavorable immune responses or adverse reactions. Sequences AAZ22915-959 represent primers for RT-PCR amplification and sequencing of the measles virus L gene and genomic termini
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCR primer; heat shock protein; HSP60a; human; clone identification; ss.
                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Identifying clones from an expression library for desired biological
                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                    1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 5 A; 6 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                              Sequence 20 BP; 5 A; 5 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FOERDERUNG WISSENSCHAFTEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lehrach H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCR primer for HSP90a protein amplification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 4; Page 28; 59pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Walter G,
                                                                                                                                                                                                                                                                            326 AGAAGCTGTGGAGCAAC 342
                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-EP002963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-00070590
                                                                                                                                                                                                                                                                                                               AGAAGCTGTGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                      AA256154 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                              Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (PLAC ) MAX PLANCK GES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Buessow K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2000-086414/07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9957311-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-NOV-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cahill D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAZ56154;
                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                               RESULT 393
                                                                                                                                                                                                                                                                                                                                                                                                8888888888
                                                                                                                                                                                                                                                                            à
```

```
The invention relates to a method of effecting degeneration of a somatic plant tissue by expressing a heterologous protein capable of binding a plant tissue by expressing a heterologous protein capable of binding a heterologous protein expression causes depletion of the PEF so the plant viability is maintained, while simultaneous degeneration of the somatic plant tissue is effected. Sequence AA291073-231078 represent examples of the heterologous gene introduced into the plants and are derived from the heterologous genes introduced into the plants and are derived from the NPTII gene from the cassette used to generate the plant expressing the heterologous genes. This is done to determine successful plant transformations. The methods can provide for the selective and optionally reversible cell degeneration in somatic plant tissue. They can be used for the actificially controlling plant development and morphology. They can be used e.g. to decrease the number of fruits which reach maturity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Degeneration of somatic plant tissue by expression of a heterologous protein, useful for controlling plant development and morphology, such as decreasing the number of flowers present to increase the number of fruit.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; ve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 2 A; 9 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example; Page 44; 91pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 dcAddrrcrccccccc 20
                                                                                                                                                                                                                                                                                                                              98IL-00125632.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   413 GCAGGCTCTCCGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                 Ginzberg I;
                                                                                                                                                                                                                                                                                                                                                                (AGRI-) AGRIC RES ORG.
                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-195402/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                03-AUG-1998;
                                                                                                                                                                                                                                                                                             30-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                               Kapulnik Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 395
AAA11309/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loca
Matches
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

DB 1; Length 20;

1.7%; Score 13.8;

SS

AAA11309,

intron

Key

```
Antisense oligonucleotides for treating hepatitis and colon, liver or lung cancer are inhibitors of Fas, Fas ligand or Fas associated protein 1 (Fap-1) expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    against nucleic acids encoding murine Fas (Apo-1). The specification describes antisense compounds which are targeted to the 5' untranslated region, translational teart site, translational termination region or 3' untranslated region of nucleic acid molecules encoding Fas, Fas ligand (FasL), or Fap-1 (Fas associated protein 1, protein tyrosine phosphatase). The antisense compounds are used to inhibit the expression of Fas, FasL or Fap-1 in cells or tissues. They are used to traat autoimmune or inflammatory diseases such as hepatitis. They can also be used to treat cancer, especially colon, liver or lung cancer or lymphoma
                  Human, Fas, Apo-1, antisense compound, Fas ligand, Fap-1, hepatitis, Fas associated protein 1, protein tyrosine phosphatase, cancer, autoimmune disease, inflammatory disease, lymphoma, phosphorothioate,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MDMX; human; antisense; inhibitor; anticarcinogen; antiinflammatory; antiinfectious; modulation; treatment; disease; diagnosis; primer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAC61860-78 represent antisense oligonucleotides which are directed
                                                                                                                                                                                                  *tag= b
'note= "contains phosphorothioate linkages"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; ve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                        *tag= c
'note= "2'-methoxyethoxy residues"
                                                                                                                                                                                                                                                'trag= a /note= "2'-methoxyethoxy residues"
16..20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 6 A; 7 C; 4 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human MDMX antisense oligonucleotide #31062.
                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 5; Page 54; 116pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          320 CTGCAGAGAAGCTGTGG 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-00290640.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-APR-2000; 2000WO-US009540.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 1.7%;
Best Local Similarity 88.2%;
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCAGACATGCTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAA11936 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                 . .20
*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Marcusson EG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-628395/60.
                                                                                                                                                                                                                                                                                                                                                                                 WO200061150-A1
                                                                                                                                                                                                                                          modified_base
                                                                                                                                                                                                                                                                                                     modified base
                                                                                                                      Mus musculus
                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                         19-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-AUG-2000
                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dean NM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAA11936;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 397
  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nucleic acids encoding transmembrane protein TRPC7 expressed in brain and homologous to transient receptor potential protein useful in the of treatment of associated diseases such as periodic psychosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to the isolation of a nucleic acid (AAA11284) coding for a transmembrane protein TRPC7 (AAAY9284) which is expressed in brain and is homologous to transient receptor potential (TRP) protein. This suggests that the TRPC7 protein may have a calcium channel function.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The genomic sequence has been shown to contain 31 introns. This sequence represents an exon/intron junction from the genomic TRPC7 sequence. The DNA and protein can be used in the diagnosis and treatment of disorders associated with TRPC7, especially the screening, monitoring and treatment (by gene therapy) of periodic psychosis, which appears to be associated with mutations in the TRPC7 gene
                                                                                                                                                     Transmembrane protein, TRPC7; brain; transient receptor potential; TRP; calcium channel function; human; gene therapy; periodic psychosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antisense oligonucleotide directed against murine Fas (Apo-1) gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred, No. 4.2e+02; ve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 4 A; 5 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                      gene exon 13/intron 13 junction.
                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 7; Page 38; 77pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     689
AAA11309 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-JP006289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98JP-00321200
                                                                                                                                                                                                                                                                                                                                                          11. .20
/*tag= b
/number= 13
                                                                                                                                                                                                                                                                                                                      /*tag= a
/number= 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAC61861 standard; DNA; 20
                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 88.7
nes 15; Conservative
                                                                                                                                                                                                                                                                                                   l. .10
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (EIKE ) EIKEN KAGAKU KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nagamine K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-387784/33
                                                                                                                                                                                                                                                                                                                                                                                                                                        #0200029571-A1
                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-NOV-1999;
                                                                                                                                                                                                  mutation; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-NOV-1998;
                                                                              08-NOV-2000
                                                                                                                 Human TRPC7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shimizu N,
```

ô

Gaps

.

Query Match

Best Loca Matches

AAC61861,

BXXXXXB

AAC61861/ RESULT

Dp

8

09-JAN-2001

99US-00289267. 99US-00289267

```
This invention describes a novel antisense compound (1), 8-30 nucleobases in length, targeted to a nucleic acid encoding a human MDMX. (1) specifically hybridiaes with and inhibits the expression of human MDMX.

The products of the invention have anticarcinogen, antinflammatory and antilefectious activity. Synthesized chimeric oligonucleotides targeted to human MDMX, 20 nucleotides in length, composed of a central gap region consisting of ten 2'-deoxymucleotides flanked on both sides by 5- nucleotide wings were tested for antisense inhibition of MDMX expression. Results of real-time quantitative polymerase chair reaction (PCR) showed to out of the 159, 20 base pair sequences, all fully defined in the specification, demonstrated at least 30% inhibition of MDMX expression.

The antisense oligonucleotides are useful for effective and specific modulation, particularly inhibition of MDMX expression, and may be used in treating humans or animals suspected of having or being prone to a disease or condition associated with expression of MDMX. The antisense oligonucleotides may also be used as research reagents or kits, and as diagnostics, e.g. to elucidate the function of a particular gene or to distinguish between functions of various members of a biological pathway, and as prophylaxis, e.g. to prevent or delay infection, inflammation or tumor formation. AAA11781-A11945 represent antisense oligonucleotides

Construction of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human, cytostatic, antiinflammatory; antisense oligonucleotide; cancer; receptor activator of NF-kappaB; RANK; infection; inflammation; ss.
                                                                                                                                                                                                                                                                                                                                            New antisense oligonucleotides targeting nucleic acids encoding human MDMX useful for inhibiting MDMX expression and for treating diseases associated with MDMX expression e.g. tumor formation, inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human RANK antisense oligonucleotide, SEQ ID NO: 49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seguence 20 BP; 6 A; 3 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
1.7%; Score 13.8; DB 1;
Best Local Similarity 88.2%; Pred. No. 4.2e+02;
Matches 15; Conservative 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3; Col 95-96; 51pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     795 CTGCAGGACTGACTGAA 811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 CTGAAGGACTGTCTGAA 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAF31791 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                       (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                  Monia BP, Cowsert LM;
                                                                                                                                                                                                                                                                                                         WPI; 2000-282710/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US6171860-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                   Homo sapiens
                                                                                                                                         09-APR-1999;
                                                                                                                                                                                    09-APR-1999;
                                                            US6046320-A.
                                                                                                 04-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAF31791;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
```

```
The present sequence is one of a number of antisense compounds of 8 to 30 nucleobases in length that have been designed to target a 5'untranslated region, relative coden, coding region or 3'untranslated region of the human receptor activator of NF-kappaB (RANK). The antisense compounds specifically hybridise with and inhibit the expression of RANK. The human RANK in human cells or issues. They can be utilised for diagnostics, therapeutics for the treatment of diseases associated with the expression of RANK prophylaxis e.g. to prevent or delay infection, inflammation or tumour formation, and as research reagent. The antisense compounds are safely and effectively administered to humans
                                                                                                                                                                               Novel antisense compounds capable of modulating expression of human receptor activator of NF-kappaB useful for diagnosis, prophylaxis and treatment of diseases associated with expression of RANK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Crawford J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tumour suppressor gene 16; TSG16; human, immune response modulator; inflammatory response modulator; signal transduction activator; cytokine inhibitor; gene therapy; anticancer; anti-inflammatory; autoimmune disorder; infection; chromosome 16q24.3; cellular proliferation suppressor; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 1.7%; Score 13.8; DB 1; Length 20; Best Local Similarity 88.2%; Pred. No. 4.2e+02; Matches 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kochetkova M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 6 A; 7 C; 3 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kremmidiotis G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (WOME-) WOMEN'S & CHILDREN'S HOSPITAL,
                                                                                                                                                                                                                                             Claim 14; Col 42; 40pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-OCT-2000; 2000WO-AU001329.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99AU-00003771.
                           99US-00435296
                                                           99US-00435296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           796 TGCAGGACTGACTGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18 recaedacrearreade
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAH27305 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human TSG16 PCR primer #5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Callen DF, Whitmore SA,
                                                                                        (ISIS-) ISIS PHARM INC
                                                                                                                       Cowsert LM;
                                                                                                                                                     WPI; 2001-136876/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-316439/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200132861-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-AUG-2001
                           05-NOV-1999;
                                                           05-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-MAY-2001.
                                                                                                                         BF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAH27305;
                                                                                                                       Baker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAH27305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
```

.,

Length 20; 2; Indels

ò

```
The present invention relates to human tumour suppressor gene 16 (TSG16; see AAH2368). TSG16 was isolated from chromosome 16g24.3. TSG16 suppresses cellular proliferation. TSG16 is useful for treating disorders associated with decreased expression or activity of TSG16, e.g. cancers, (auto)immune disorders, inflammation, complications of wound healing and infections (by viruses, bacteria, fungi, parasites, protozoa or helminths). The present sequence is a PCR primer, which was used in the present invention
New nucleic acid representing the human tumor suppressor gene TSG16, useful e.g. for diagnosis and treatment of tumors, inflammatory and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human cyclin E antisense oligonucleotide ANG 1057, SEQ ID NO:13
                                                                                                                                                                                                                                                                                                                                                                                             Query Match
1.7%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.2e+02;
Matches 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                     Sequence 20 BP; 4 A; 7 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                              Claim 84; Page 182; 215pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВЪ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAF27138
ID AAF27138 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              658 TTCTCATGCAGCTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 Trcrcardcadardace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                        useful e.g. for diagnosi
immunological disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAF27138;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 400
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
```

ö

Gaps

ö

Human cyclin E gene; 3' UTR; 3' untranslated region; cell cycle control; Gl phase cyclin, S phase entry, cellular proliferation, antisense, expression inhibition; antiproliferative, antipsoriatic, cytostatic, restenosis, cancer, psoriasis, phosphorothioate, ss.

Homo sapiens.

WO200100821-A1.

04-JAN-2001.

19-JAN-2000; 2000WO-CA000049.

99US-0140446P. 23 - JUN - 1999;

(ANGI-) ANGIOGENE INC

revesque L;

WPI; 2001-112453/12.

Sequences AAF27128-AAF27139 represent antisense oligonucleotides targetted to the 5' or 3' UTR (untranslated region) of the human cyclin E gene. Cyclin E is a G1 phase cell cycle protein which regulates the entry of cells into the S phase. The antisense oligonucleotides of the invention inhibit the expression of cyclin E, thereby inhibiting cellular proliferation. The antisense oligonucleotides are useful for inhibiting or preventing cellular proliferation, and can thus be used in the treatment of restenosis, cancer and postiasis. The antisense oligonucleotides are also useful for the manufacture of a medicament for Antisense oligonucleotide, useful for modulating human cyclin E gene expression and inhibiting cellular proliferation caused by restenosis and cancer, has a sequence complementary to the 5' or 3' untranslated region of cyclin E gene. Claim 3; Page 13; 52pp; English.

ö Mutations in nucleic acid molecules encoding 11-cis retinol dehydrogenase correlated to ocular disorders, useful in diagnosis and treatment of diseases such as fundus albipunctatus. Gaps retinol dehydrogenase; RDH5; eye; mutant; mutation; disease; fundus albipunctatus; retinitis punctata albescens; ocular disease; fundus albipunctatus; retinitis punctata aldesce albipunctate dystrophy; retinitis pigmentosa; human; primer; ss. ö 1.7%; Score 13.8; DB 1; Length 20; llarity 88.2%; Pred. No. 4.2e+02; Conservative 0; Mismatches 2; Indels Primer for amplifying 11-cis retinol dehydrogenase (RDH5) Yamamoto H; Sequence 20 BP; 4 A; 6 C; 5 G; 5 T; 0 U; 0 Other; Berson EL, (LUDW-) LUDWIG INST CANCER RES. (HARD) HARVARD COLLEGE. (MASS-) MASSACHUSETIS EYE & EAR INFIRMARY. inhibiting cellular proliferation Dryja TP, Example 1; Page 8; 28pp; English BP. 684 GGATCTGCACACGCTT 700 50 08-MAY-2000; 2000WO-US012527 99US-00306538 AAA54448 standard; cDNA; 20 GGCTCTGCACACGCTT Eriksson U, WPI; 2001-016091/02. Local Similarity les 15; Conserv WO200068364-A2 06-MAY-1999; Homo sapiens. 11-APR-2001 16-NOV-2000 AAA54448; Query Match Simon A, 11-cis RESULT 401 Matches AAA54448/ ប្ដង្គន្ល à g

sequence corresponding to wild type retinol dehydrogenase (RDH5), but where amino acid 238 is not Gly, amino acid 73 is not Ser, or amino acid 33 is not lle. This mutant RDH5 can be used in the analysis of mutations in the gene encoding retinol dehydrogenase, in the diagnosis and treatment of ocular diseases associated with retinal degeneration such as fundua albipunctate albescens, which may also be studied include retinitis punctata albescens, albipunctate dystrophy and retinitis pigmentosa. A number of primer pairs (See GENESEQ records AAA54433-AAA54443) were used to amplify the genomic RDH5 DNA. Two primers (AAA5447, AAA54449) were used to amplify exon 5b of the RDH5 gene. This primer corresponds to nucleotides 5731-5748 of the genomic DNA sequence (See GENESEQ record AAA54431) A new protein is described which comprises the 318 residue amino acid

Query Match
1.7%; Score 13.8; DB 1; Length 20;
Best Local Similarity 88.2%; Pred. No. 4.2e+02;
Matches 15; Conservative 0; Mismatches 2; Indels Best Loca Matches

Sequence 20 BP; 4 A; 5 C; 5 G; 6 T; 0 U; 0 Other

ò

Gaps

ö

453 GCCTTCCAGGAAGACT 469

à

```
Mouse caspase 8 mRNA antisense compound ISIS 107719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-JUL-2001
                                                                                                                                Synthetic.
    This invention describes a novel method for detecting microorganisms (A) of importance in brewing which comprises treating a sample with at least two primers (P1) that hybridize to a consensus region in the mucleic acid of (A) at least part of the microbial nucleic acid is amplified, the amplicon is treated with at least one probe (P2) that hybridizes specifically with a sequence common to all (A) or specific for one or more families, genera or species, and any formation of hybrids is detected. The method is used to detect, identify and/or characterize microorganisms in beer or brewing materials, particularly for detecting contamination. The method may detect the entire range of contaminating microbes, either as a general test for contamination or as a test specific for particular genera or (sub) species. It is quicker than known microbes, eitherdds, and can detect several organisms in the same method provides an early indication of contaminates. The method provides an early indication of contamination and can be automated for high throughput analysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Detecting contaminating microorganisms in brewing, by nucleic acid amplification and hybridization, either non-specific or genus- or species -specific.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                           23S rRNA; 5s rRNA; detection; probe; brewing; beer; contamination;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; Live 0; Mismatches 2; Indels
                                                                                                                                                                                                                                       Lactobacillus sp 238 rRNA/58 rRNA specific probe SEQ ID 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 7 A; 4 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (BIOT-) BIOTECON DIAGNOSTICS GMBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 9(i); Page 18; 48pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Berghof K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          597
                                                          RESULT 402

AAF61663 standard; DNA; 20 BP
XX
AAF61663;
DT
02-UUL-2001 (first entry)
XX
12 Lactobacillus sp 238 rRNA/58
XX
238 rRNA; 58 rRNA; detection;
XX
23 rRNA; 59 rRNA; detection;
XX
24-SEP-1999; 99DE-01045964.
XX
24-SEP-1999; 99DE-01045964.
XX
24-SEP-1999; 99DE-01045964.
XX
24-SEP-1999; 99DE-01045964.
XX
XX
ABIOT-) BIOTECON DIAGNOSTICS
XX
X 24-SEP-1999; 99DE-01045964.
XX
C1 SEP-1999; 99DE-01045964.
XX
C1 SEP-1999; 99DE-01045964.
XX
C2 This invention describes a no computer on prewing which representation of hybridization and hybridization amplification and hybridization amplification and hybridization amplification is treated with at 10 comported miles, genera or specifically with a sequence computer familiaes, genera or specific for particular general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controbes, either as a general controb
                                                                                                                                                                                                                                                                                                                                                                                                                                                      99DE-01045964.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99DE-01045964.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          581 TCACGTGTCTTACTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGGGGTCTTACTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
    GCCTTCCAGCAAGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 88.2
Matches 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAD12441 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAD12441;
    19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 403
AAD12441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

```
New antisense compounds capable of modulating expression of caspase 8 for the diagnoses, prophylaxis and treatment of diseases associated with expression of caspase 8, e.g. inflammation and tumor formation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to antisense compounds which inhibit the expression of human caspase 8. The antisense compound is useful for diagnosing and treating diseases associated with the expression of caspase 8 and for prophylaxis e.g. to prevent or delay infection, inflammation or tumour formation, and as a research reagent. The present sequence is an antisense compound targetted to mouse caspase 8 mRNA
Caspase 8; infection; inflammation; tumour; research reagent; cytostatic; gene therapy; antisense; mouse; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag= j
/mod_base= m5c
16. .20
/*tag c
//mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides"
                                                                                                                                                                                                                                                                     /mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides"
                                                                                                                                                                                                           'note = "Phosphorothioate backbone"
                                                                                                                        iocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Col 47-48; 56pp; English.
                                                                                                                                                                     J= a
base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= h
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= i
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mSc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag= k
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                    /*tag= d
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                           mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= f
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-JAN-2000; 2000US-00487445.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-JAN-2000; 2000US-00487445.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag= g
/mod_base=
                                                                                                                                                                                                                                                   Д
                                                                                                                                                                                                                                                                                                                                                                                                         ø
                                                                                                                                                                                                                                                 *tag=
                                                                                                                                               1. .20
/*tag=
/mod_ba
                                                                                                                                                                                                                                                                                                                                                                                                     *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zhang H, Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-432165/46.
                                                                                                                             Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                               modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modified_base
                                                                                                                                                                                                                                 nodified base
                                                                                                                                                                                                                                                                                                                    modified base
                                                                                                                                                                                                                                                                                                                                                                                 nodified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SISI (-SISI)
                                                              Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JS6258600-B1
```

3,

RESULT 404

Matches

```
The present invention describes an antisense compound (I), 16 to 30 bases in length targeted to specific base regions of a nucleic acid encoding human Talin, Also described; (a) an antisense compound up to 30 bases in length which inhibits the expression of human Talin; (b) a composition (II) comprising (I) or (a), and (c) inhibiting the expression of human cils or tissues comprising contacting the cells or tissues to vitro with (I) or (a). (I) has antimicrobial, antiinflammatory and cytostatic activities, and can be used in antisense gene therapy and as a Talin expression inhibitor. (I) can be used: to inhibit the cytostatic activities, and can be used in antisense gene therapy and as a Talin expression inhibitor. (I) can be used: to inhibit the respection, inflammation or tumour formation; and in diagnostics, therapeutics, prophylaxis, and in research reagents and kits. The present sequence represents a human Talin antisense chimeric phosphorchhoate collegents at human Talin antisense chimeric phosphorchhoate collegents and all nucleotide deoxy gap in the middle, which is used in an example from the present invention
                                                                                                                                                                      Human, Talin, antimicrobial, antiinflammatory, cytostatic, inhibitor, antisense gene therapy, infection, inflammation, Talin inhibitor; tumour, antisense oligonuclectide, phosphorothioate, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New antisense compound useful for inhibiting expression of Talin and for preventing or delaying infection, inflammation or tumor formation.
                                                                                                              Human Talin antisense phosphorothioate oligonucleotide SEQ ID NO:60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (2'-MOE) nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                            /mod_base= OTHER
/note= "phosphorothioate backbone"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Seguence 20 BP; 4 A; 8 C; 6 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mod_base= OTHER
/note= "2'-methoxyethyl
16..20
                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 14; Col 41; 46pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400 ACACCCTGCTCCAGCAG 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-OCT-2000; 2000US-00702251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-OCT-2000; 2000US-00702251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 Acecericacaccadead
                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                               Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            υ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                      . 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-470102/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                          Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            modified_base
                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US6372492-B1
                                                     29-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CF,
ABN89247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bennett
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes the human Zmax1 gene and the high bone mass (HBM) gene, which are found on chromosome 11g13.3. The Zmax1 and HBM genes have osteopathic activities. The genes can be used in gene therapy, antisense therapy and in the production of vaccines. They can be used in the diagnosis and treatment of bone disorders including osteoporosis, Pager's disease, sclerostosis, osteomalacia and fibrous dysplasia. ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 to ABA82038 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; high bone mass; HBM gene; Zmaxi gene; chromosome 11; 11q13.3; sequence tagged site; STS; osteoporosis; osteopathic; gene therapy; anticense therapy; vaccine; bone disorder; Paget's disease; adapter; sclerostosis; osteomalacia; fibrous dysplasia; PCR primer; linker; ss
                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New high bone mass (HBM) and Zmaxl genes and proteins useful for modulating bone mass for the treatment of e.g. osteoporosis.
                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                     ch 1.7%; Score 13.8; DB 1; Length 20; 1 Similarity 88.2%; Pred. No. 4.2e+02; 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Match 1.7%; Score 13.8; DB 1; Length 20; Local Similarity 88.2%; Pred. No. 4.2e+02; les 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zmax1 gene region physical map preparation STS marker #78.
Sequence 20 BP; 2 A; 8 C; 4 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 6 A; 5 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Johnson ML;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Recker RR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 33; 443pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENO-) GENOME THERAPEUTICS CORP.
                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        845
                                                                                                                                                                                                                                                                                                                                                                                         BP.
                                                                                                                                                                                                                                     18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABN89247 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-JUN-2000; 2000WO-US016951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-APR-2000; 2000US-00543771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-APR-2000; 2000US-00544398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGAAGCAGGGACCAGA
                                                                                                                                                                                405 CTGCTCCAGCAGGCTCT
                                                                                                                                                                                                                                                                                                                                                                                      ABA82119 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  829 CTGAAGCTGGTACCAGA
                                                                                                                                                                                                                                  2 chrecedadeacher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Little RD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-657171/75
                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200177327-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carulli JP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABA82119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
```

.. 0

Gaps

. 0

Best Loca Matches

à g RESULT 405

ABN89247 ID ABN

```
pQE276; T7-expression cassette; pQE32; Pichia pastoris; AOX; yeast alcobol oxidase promoter; yeast C181 promoter; CMV; PARS; tetracycline promoter; cytomegalovirus promoter; multiple cloning site; autonomously replicating sequence; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABN79651,
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to human and mouse alpha-catenin polypeptides and their associated polynucleotides. The polypeptides and related antibodies ser eseful for modulating the cadherin-catenin related pathway in selected organs, such as the heart and testis. The nucleic acids and the artibodies are useful in the diagnosis and/or prediction of the likelihood of developing cadherin-catenin related diseases. The nucleic acids may also be used to predict the likelihood of developing cancer or in diagnosing cancer, and in gene therapy. The polypeptide, the nucleic acid or the antibody is useful in manufacturing a medicament for treating cadherin-catenin related diseases, such as cancer, cardiomyopathy, specifically dilated cardiomyopathy, and male infertility. Sequences hax41510-ABX41529 represent PCR primers used to amplify DNA encoding human and mouse alpha-catenin polypeptides, including the CTNNA3 gene which encodes human alpha T-catenin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New alpha catenin polypeptides and polynucleotides encoding them, useful for predicting, diagnosing or treating cadherin-catenin related diseases, particularly cardiomyopathies, cancer and male infertility.
                                                                                                                                                                                                                                                                         Human; mouse; alpha-catenin; primer; ss; cytostatic; antiinfertility; cadherin-catenin related pathway; heart testis; cancer; gene therapy; cadherin-catenin related disease; specifically dilated catdiomyopathy; cardiomyopathy; male infertility; CTNNA3; PCR; alpha T-catenin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .,
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Van Roy F, Goossens S, Janssens B, Vanpoucke G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 3 A; 7 C; 5 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (VLAA-) VLAAMS INTERUNIVERSITAIR INST BIOTECHNOG.
                                                                                                                                                                                                                          Mouse alpha-catenin DNA PCR primer #23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example; Page 15; 132pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              407 GCTCCAGCAGGCTCTCC 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-JUN-2001; 2001WO-EP007392.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-JUL-2000; 2000EP-00202472.
14-JUL-2000; 2000US-0218309P.
                                                        ABK41599 standard; DNA; 20
                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 1.7
Best Local Similarity 88.2
Matches 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2002-171717/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200204636-A1
                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus.
                                                                                                                                                                     21-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JAN-2002.
                                                                                                             ABK41599;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 407
AAH77260
XX
AC AAH7721
XX
C AAH7721
XX
XX
DT 08-APR
XX
DE Pichia
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK41599
ABK
```

Pichia pastoris PCR primer pQE276

(first entry)

08-APR-2002

AAH77260;

ВР.

AAH77260 standard; DNA; 20

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                           The sequence represents Pichia pastoris PCR primer pQE276. The primer was used in the invention to generate a T7-expression cassette from a modified pQE32. The invention relates to a shuttle vector for expression of nucleic acid in Pichia pastoris and Escherichia coli. The vector comprises a promoter selected from yeast alcohol oxidase (AoX) promoter, yeast CUS1 promoter, tetracycline promoter or cytomegalovirus (CMV) promoter, an E.coli T7 promoter a P.pastoris autonomously replicating sequence (PARS), and a multiple cloning site. The shuttle vector is useful in in vitro transcription/translation of cloned nucleic acid
                                                                                                                                                                                                                                                                                                Novel shuttle vector for expression of nucleic acid in Pichia pastoris and Escherichia coli, for protein production, comprises a promoter, Pichia pastoris autonomously replicating sequence and multiple cloning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7%; Score 13.8; DB 1; Length 20;
88.2%; Pred. No. 4.2e+02;
Attive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mouse, immunosuppressive, antiinflammatory, hepatotropic, cy
vasotropic, hepatitis, cancer, allograft rejection, ds, Fas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mouse Fas chimeric phosphorothioate oligonucleotide #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 5 A; 6 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                        (PLAC ) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
                                                                                                                                                                                                                  ñ
                                                                                                                                                                                                                  Cahill
                                                                                                                                                                                                                                                                                                                                                                                                               Example 2; Page 12; 37pp; English.
                                                                                                                                                                                                                  Lehrach H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCAACCGAGCGTTCTGA 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-MAR-2001; 2001US-00802669.
                                                                                                                            07-APR-2000; 2000EP-00107588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7651/c
ABN79651 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        647 GCAACCGAGTGTTCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                  Lueking A, Holz C,
                                                                                                                                                                                                                                                           WPI; 2002-034244/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US2002004490-A1
MO200177351-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mar
Local St.
15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-JUL-2002
                                         18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABN79651;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
```

```
12-FEB-2002
                                                                                                                          15-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABA02271;
                                                                                                                                                                                                                                                                                                Mckay R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABA02271/
  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MARK SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                              This invention relates to an antisense compound encoding Fas, Fas ligand, or Fas associated protein-1 (Fap-1). The inhibition of Fas mediated signalling is thought to be immunosuppressive, antiinflammatory, hepatricopic, cytostatic and vasotropic. Antisense oligonuclectides were designed to target human Fas. Oligonucleotides were synthesised as chimeric oligonucleotides and are useful for treating an animal having an autoimmune or inflammatory disease e.g., hepatitis, cancer, a condition associated with apoptosis, allograft rejection, or ischemia reperfusion injury. Optionally, the above mentioned conditions are prevented by contacting the allograft with the antisense oligonucleotide. The
                                                                                                                                                                                                                                                 Novel antisense compound targeted to nucleic acid encoding Fas, Fas
ligand or Fas associated protein-1 is useful for inhibiting expression of
Fas, Fas ligand, or Fap-1 in cells or tissues, and for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                oligonucleotides are used in diagnostics, therapeutics, prophylaxis and as research reagents and in kits. The oligonucleotides are also useful for research purposes. The present nucleotide sequence is related to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ss; antisense therapy; casein kinase-2 alpha; cytostatic; antidiabetic; antiinflammatory; diabetes; hyperproliferative disorder; cancer; human; breast cancer; prostate cancer; liver cancer; infection; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 13.8; DB 1; Length 20;
Pred. No. 4.2e+02;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cytidines are 5-methylcytidine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Casein kinase-2 antisense oligonucleotide ISIS127203.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag= b
/label= OTHER
/note= "2'-methoxyethyl nucleotides"
16. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 6 A; 7 C; 4 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                     Zhang H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Phosphorothioate backbone'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                     Wyatt J,
                                                                                                                                                                                                                                                                                                                                                            Claim 3; Page 17; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    320 CTGCAGAGAAGCTGTGG 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= a
/label= OTHER
/note= "All cyt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP.
12-APR-1999; 99US-00290640.
18-SEP-2000; 2000US-00665615.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17 CTGCAGACATGCTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABS67703 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                     EG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .20
                                                                                  ö
                                                            (DEAN/) DEAN N M.
(MARC/) MARCUSSON E G
(WYAT/) WYATT J.
(ZHAN/) ZHANG H.
                                                                                                                                                                     Marcusson
                                                                                                                                                                                                             WPI; 2002-204886/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-NOV-2002
                                                                                                                                                                                                                                                                                                                  hepatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mouse Fas
                                                                                                                                                                     Dean NM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABS67703;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 409
ABS67703/c
  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
The invention relates to a compound 8-50 nucleobases in length targeted to a nucleic acid molecule encoding casein kinase 2-alpha. The compound specifically hybridises with at least an 8-nucleobase portion of an active site on a nucleic acid molecule encoding casein kinase 2-alpha tor specifically hybridises with at least an 8-nucleobase portion of an active site on a nucleic acid molecule encoding casein kinase 2-composition comprising the compound and a carrier or diluent; (1) a composition comprising the compound and a carrier or diluent; (2) inhibiting the expression of casein kinase 2-alpha in cells or tissues by contacting the cells or tissues with the novel compound; and (3) treating an animal having a disease or condition associated with casein kinase 2-alpha by administering to the animal the compound cited above so that expression of casein kinase 2-alpha is inhibited. The antisense compounds is inhibited. The antisense compounds or creating diseases or conditions associated with expression of casein kinase 2-alpha, e.g. diabetes or hyperproliferative disorder, particularly cancer, such as breast cancer, prostate cancer, or liver cancer. The antisense compounds are also useful for diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay infection, inflammation or tumour formation, as research reagents and kits, and in casein minimum between functions of various members of a biological pathway. The present sequence is a casein kinase-2 alpha antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New antisense oligonucleotides targeted to nucleic acid encoding casein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        kinase 2-alpha, useful in diagnostic and research applications, or for treating a disease or condition associated with expression of casein kinase 2-alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human C/EBP phosphorothioate antisense oligonucleotide, SEQ ID:83.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; C/EBP alpha; CCAAT/enhancer-binding protein alpha; CEBPA; transcription factor; tissue development; cellular function; proliferation; differentiation; adipocyte; energy metabolism; chondrogenic; ovulation; follicular development;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
/*tag= c
/label= OTHER
/note= "2'-methoxyethyl nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seguence 20 BP; 3 A; 7 C; 4 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 3; Page 96; 166pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wyatt JR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP.
                                                                                                                                                                                                                                                                                                                          31-JAN-2002; 2002WO-US002942
                                                                                                                                                                                                                                                                                                                                                                                                        08-FEB-2001; 2001US-00780172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             497 AATTGGAGATTTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20 AATGGGAGATGTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABA02271 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Freier SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-627521/67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
ses 15; Conserv
                                                                                                                                                               WO200262818-A2
```

ö

```
16. .20
/*tag= c
/mod_bag= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
cytosines are 5-methylcytosine"
hepatic steroid-induced cell cycle arrest; GLUT2 promoter regulation; hormonal metabolic regulation; granulccyte development; cancer; tumour formation; infection; inflammation; expression inhibition; antisense therapy; quantitative real-time PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                     /mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides, All 2'
cytosines are 5-methylcytosine"
                                                                                                                                                                                                                                         /mod_base= OTHER
/note= "Phosphorothioate linkages"
                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Monia BP, Butler MM, Wyatt J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-JUN-2000; 2000US-00593589.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-JUN-2000; 2000US-00593589
                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                       Ø
                                                                                                                                                                                                                                                                                           1. .5
/*tag= ]
                                                                                                                                                                                               ...20
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ISIS-) ISIS PHARM INC
                                                                                                                                                                      Key
modified_base
                                                                                                                                                                                                                                                                                      modified_base
                                                                                                                                                                                                                                                                                                                                                                                                        modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US6306655-B1
                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-OCT-2001
```

MOE

New antisense oligonucleotides for modulating the expression of CCAAT/Enhancer-binding proteins alpha, particularly useful for preventing, delaying or treating infection, inflammation or tumor formation

Claim 1; Col 43; 44pp; English.

Sequences ABA02205-ABA02282 represent antisense oligonucleotides targeted to the human CCAAT/enhancer-binding protein alpha (C/EBP alpha) gene, which inhibit its expression. The antisense oligonucleotides were designed to target different regions of the human C/EBP alpha RNA, and were analysed for their effect on C/EBP alpha mRNA levels by quantitative real-time PCR. A similar investigation on mouse C/EBP alpha expression was performed using a subset of the antisense oligonucleotides that were capable of hybridising to mouse C/EBP alpha mRNA. The C/EBP family of proteins are a family of transcription factors which requilate the expression of wide range of genes that control normal tissue development, cellular function, cellular proliferation and functional differentiation. C/EBP alpha (also known as CEBPA) is primarily found in tissues involved in energy metabolism which have a capacity to metabolise lipids, cholesterol and other sterols. It is thought to be involved in the useful regulation of adipocyte and chondrogenic differentation, and is also involved in follicular development and ovulation, steroid-induced cell cycle arrest in the liver, in controlling glucose transporter GIUTZ promoter activity, in the hormonal regulation of metabolism, and in granulocyte development. The oligomucleotides of the invention are usef for diagnosis, prevention and treatment of conditions associated with c/EBP expression, such as cancer, tumour formation, infection, or inflammation

Sequence 20 BP; 6 A; 7 C; 5 G; 2 T; 0 U; 0 Other;

```
;
0
                                                    Gaps
                                                    .
Query Match 1.7%; Score 13.8; DB 1; Length 20; Best Local Similarity 88.2%; Pred. No. 4.2e+02; Matches 15; Conservative 0; Mismatches 2; Indels
```

```
Novel antisense compound targeted to nucleic acid molecule encoding tumor necrosis factor receptor 1 (TNFR1), useful for treating humans having disease associated with TNFR1 e.g. hepatitis, liver injury, liver cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to an antisense compound 8 to 30 nucleotides in length targeted to nucleic acid molecule encoding tumour necrosis factor receptor 1 (TNFR1), where the antisense compound inhibits expression of TNFR1. The antisense compound is useful for inhibiting the expression of TNFR1 in cells or tissues. The antisense compound is also useful for treating an animal (preferably human) having a disease or condition associated with TNFR1. e.g. a liver disease (such as hepatitis, or liver injury) or a hyperproliferative disease (such as cancer, by inhibiting the expression of TNFR1. The antisense compound is useful for diagnostics, therapeutics, prophylaxis and as research reagents and kits. This polynucleotide sequence represents a mouse oligonucleotide relating to the TNFR1 of the invention
                                                                                                                                                                                                                                             Antisense compound; tumour necrosis factor receptor 1; liver disease; TNFR1; hepatitis; liver injury; hyperproliferative disorder; cancer; mouse; murine; ds.
                                                                                                                                                                                                                              INFR1 expression modulation related antisense oligo SEQ ID No 207.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 3 A; 5 C; 8 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dean NM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 21; Page 61; 121pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zhang H,
249
                                                                                                                       ABT05177 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                            22-OCT-2001; 2001WO-US051224.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-OCT-2000; 2000US-00695451.
                               Н
                        17 GGTCGTGGGTCAGCTCT
233 GGCCGTGGCTCAGCTCT
                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cowsert LM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-583481/62
                                                                                                                                                                                                                                                                                                                                                                       WO200248168-A1.
                                                                                                                                                                                           11-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                        20-JUN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Baker BF,
                                                                                                                                                         ABT05177;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                     fus sp.
                                                                                    RESULT 41
                                                                                                                                      ò
```

Gaps .; 0 2; Indels 1.7%; Score 13.8; DB 1; Local Similarity 88.2%; Pred. No. 4.2e+02; hes 15; Conservative 0; Mismatches 2; 193 GGGTCAGTTTCCTGGGT 209 ò

ö

20 GGGTCAGCTCCCTGGGT

g

AAD24285 standard; DNA; 20 (first entry) 07-MAR-2002 AAD24285; RESULT 412 AAD24285 ID AAD242 XXXEX

떮

```
88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 creadecadecada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAS96682 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 88.2
Matches 15, Conservative
                                                                                                                                                                                                                                                     Carulli JP, Little RD,
                                                                                                                                                                                                                                                                                 WPI; 2002-097784/13.
                                                                           WO200192891-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
Synthetic.
                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-APR-2002
                                                                                                           06-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAS96682;
                                                                                                                                                                                                        (GENO-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 414
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      - <u>Q</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to methods of detecting genetic deletions, translocations and mutations associated with at least one condition selected from the group consisting of DiGeorge syndrome (DGS), CHARGE association, Velocardiofacial (Shprintzen) syndrome (VCF), conortuncal defect and/or cleft palate in a human patient. DGS is linked to chromosomal deletion of chromosome 22. The method involves identifying in a sample DNA if there are less than 2 functional copies of chromosome 22q11 and including locus D2S36 to locus BCRL2, indicating a genetic for diagnosing DGS, VCF, CHARGE association, conotruncal defect and/or cleft palate, particularly in prenatal monitoring. The present sequence is a PCR primer used to amplify genomic DNA extracted from ADU, VDU and normal human lymphoblastoid cell lines and somatic cell human-hamster hybrid cell line GM10888. This sequence is used in the dosage analysis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; mouse; Zmaxl; HBM; high bone mass gene; lipid regulation; stroke; lipid-associated condition; arteriosclerosis; cardiovascular disease; ss; osteoporosis; atherosclerosis; diabetic atherosclerosis; plaque build-up; neurovascular condition; wound healing; gene therapy; PCR primer; probe;
                            Human, genetic deletion, translocation, mutation, conotruncal defect, DiGeorge syndrome, DGS; CHARGE association, Velocardiofacial syndrome; Shprintzen syndrome; cleft palate; chromosome 22q11; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                             Novel methods to detect genetic changes associated with DiGeorge syndrome, Velocardiofacial syndrome, CHARGE association, conotruncal defect and/or cleft palate are useful for prenatal screening for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 13.8; DB 1; Length 20;
Pred. No. 4.2e+02;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 5 A; 8 C; 2 G; 5 T; 0 U; 0 Other;
Human genomic DNA amplifying primer, der(2)R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human Zmax1 cDNA reverse PCR primer #39.
                                                                                                                                                                                                                                                                                     CHILDRENS HOSPITAL PHILADELPHIA. UNIV PENNSYLVANIA.
                                                                                                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                                                                      Driscoll
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 8; Col 40; 56pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               863 TGATGAGCCCAACTCCA 879
                                                                                                                                                                                                                       91US-00770758.
92US-00911534.
93US-00156672.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP
                                                                                                                                                                                          95US-00473319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.7%;
88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAATGAGCCCACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABK22916 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                      Budarf ML,
                                                                                                                                                                                                                                                                                                                                                                  WPI; 2002-033211/04
                                                                                                                                                                                                                        04-OCT-1991;
                                                                                               Homo sapiens
                                                                                                                                                                                          17-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7CF patients
                                                                                                                              US6303294-B1
                                                                                                                                                                                                                                                       22-NOV-1993;
                                                                                                                                                          16-OCT-2001.
                                                                                                                                                                                                                                                                                                                                      BS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABK22916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   diseases
                                                                                                                                                                                                                                                                                     (CHIL-)
(UYPE-)
                                                                                                                                                                                                                                                                                                                                      Emanuel
```

```
The invention relates to a method for identifying a molecule involved in lipid regulation comprising identifying a molecule that binds to or inhibits binding of a molecule to high bone mass (HBM) or its wild type gene, Zmax1. Compounds identified by the method are useful for treating, associated conditions, including arteriosclerosis, cardiovascular disease, stroke, and osteoporosis. The compounds may also be used in the treatment or prevention of diabetic atherosclerosis, neurovascular conditions caused by plaque build-up, poor circulation due to plaque build-up and associated poor wound healing. The methods may be used in gene build-up and associated poor wound healing. The methods may be used in gene therapy, pharmaceutical development, and diagnostic assays for bone development disorders. Molecules identified by comparison of Zmax1 and HBM systems can be used as surrogate markers in pharmaceutical development, in diagnosis of human or animal bone disease, and in the treatment of bone diseases. Sequences ABK22776-ABK23411 represent cDNNs colecules encoding human Zmax1 and HBM, and PCR primers, probes, linkers and adapters of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Telomerase reverse transcriptase, TERT, cytostatic, apoptosis; cell growth inhibitor; antisense oligonucleotide; antisense technology;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Identifying molecules involved in lipid regulation, useful for diagnosing, treating or preventing e.g., arteriosclerosis, comprises identifying a molecule that binds to high bone mass gene or its corresponding wild type gene.
bone development disorder; antiarteriosclerotic; cardiovascular;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Telomerase reverse transcriptase, antisense oligonucleotide #92.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; ve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 6 A; 5 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Recker RR, Johnson ML;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENOME THERAPEUTICS CORP. UNIV CREIGHTON SCHOOL MEDICINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 38; 409pp; English.
                                                           osteopathic; cerebroprotective
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          829 CTGAAGCTGGTACCAGA 845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAY-2001; 2001WO-US016946.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-MAY-2000; 2000US-00578900.
```

ö

ઠે

```
The invention relates to identifying agents (e.g. antibacterial peptides)

for inhibiting the growth of, or killing a bacteria (especially S. preumoniae) comprising: (a) contacting the agent with a bacteria (the bacteria cell has a defective His Asp phosphorelay pathway, especially the mutations in the genes of the ABC transporter cluster); and (b) determining whether the cell is killed or its growth is inhibited (an agent is identified as capable of killing or inhibiting the growth of a bacterial cell if the kills or inhibits the growth of the bacterial. The method identifies antibacterial agents that may be used in conjunction with penicillin to treat bacterial infections and inflammations, especially those caused by pneumococi Staphylococus aureus, Acinetobactor. Enterococus faecalis, Escherichia coli, Pseudomonas, actual of which cause blood poisoning among other ailments, Mycobacterium tuberculosis which causes tuberculosis; Shigella dysenteria which causes dysentery; and Neiseria gonorrhoeae which causes of treatment of infections due to Streptococcus pneumoniae, a bacterial conference in the causes blood poisoning, middle ear infections, pneumonia, and meningitis in humans. Additionally, the present invention provides and meningitis in humans. Additionally, the present invention provides antibiotics that can kill but not lyse autolysis prone pneumococci, especially those that may be resistant to other drugs, e.g. vancomycin. The present sequence is a printmer associated with the method of the invention.
                                                                                                                                                                                                                                                                                                       Identifying antibacterial agents which may be administered with penicillin for treating infections by drug-resistant bacteria, e.g. vancomycin resistant pneumococcal cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MLL gene; leukaemia; diagnosis; panhandle; PCR; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 invention. Note; The present sequence is included in the s
but is not referred to anywhere else in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20 BP; 3 A; 3 C; 8 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Leukaemia-associated MLL gene PCR primer.
                                                                                                                                                                    (SJUD-) ST JUDE CHILDREN'S RES HOSPITAL.
                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Col 103-104; 77pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        454 CCTTCCAGGAAGAGCTC 470
                                                                                                                     98US-0084399P.
                                                                      99US-00305984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ccarccascaagascrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABL53960 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                   Tuomanen EI;
                                                                                                                                                                                                                                                                WPI; 2002-105274/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15; Conserv
                                                                      05-MAY-1999;
                                                                                                                     36-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US6368791-B1
                    18-DEC-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39-APR-2002
                                                                                                                                                                                                                   Novak R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABL53960;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABL53960
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention describes a compound, 8-50 nucleobases in length targeted to a nucleic acid molecule encoding human TERT (telomerase reverse transcriptase), where the compound specifically hybridises with and inhibits the expression of TERT. A series of oligonuclectides where concerties in length and composed of a central app region consisting of the 12-deoxynuclectides, flanked on both sides (8, and 3' directions) by five-nuclectides wings. The wings were composed of 2'-methoxyethyl (2'-MOE) nuclectides. The compounds were analysed for their effect on human TERT mRNA levels by reverse transcriptase (RT) polymerase chain reaction (PCR). The compound is useful for inhibiting the expression of TERT in associated with TERT, for modulating abpoptosis, for inhibiting cell growth (preferably, cancer cell growth), in antisense therapy and for diagnostics and therapeutics. This sequence is an antisense cold molecules encoding TERT, described in the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABC Transporter; His-Arg phosphorelay signal transduction pathway; ss; antibacterial peptide; bactericidal; anti-inflammatory; Streptococcus pneumoniae; bacterial infection; inflammation; Staphylococcus aureus; Acinetobactor; Enterococcus faecalis; Escherichia coli; Pseudomonas aeruginosa; blood poisoning; primer; Mycobacterium tuberculosis; tuberculosis; Shigella dysenteria; dysentery; Neisseria gonorrhoea; gonorrhoea; middle ear infection; pneumonia;
                                                                                                                                                                                                                                                                                                                                                                   New compound targeted to nucleic acid molecule encoding telomerase transcriptase (TERT), which specifically hybridizes with and inhibits expression of TERT, useful for modulating apoptosis and inhibiting cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Indels

    S. pneumoniae antibacterial peptide related primer #8.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 3 A; 3 C; 7 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 13.8; DB 1;
Pred. No. 4.2e+02;
                                                                                                                                                                                                                                                                     Wancewicz E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 19; Page 92; 154pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               meningitis; antibiotic; vancomycin
                                                                                                                                                                                                                                                                     Freier SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP.
                                                                                                15-MAY-2001; 2001WO-US015774.
                                                                                                                                             16-MAY-2000; 2000US-00572423, 07-DEC-2000; 2000US-00733294.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            515 TTTGGCATTTGGGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 TTTGGGATTTGGAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABK33185 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 88.2 es 15; Conservative
                                                                                                                                                                                                                      (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                     Gaarde WA,
                                                                                                                                                                                                                                                                                                                       WPI; 2002-075321/10.
WO200188198-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US6331407-B1
                                                 22-NOV-2001
                                                                                                                                                                                                                                                                     Monia BP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
```

Matches

셤

ö

Gaps

ö

included in the sequence listing

schu568-1.rng

```
Patturajan M,
Gangolli EA, N
Gerlach VL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200285308-A2.
           22-MAR-2001;
25-APR-2001;
31-JUL-2001;
                                                                                          Shimkets RA,
Tchernev VT,
                                              29-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-OCT-2002,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABZ92919;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABZ92919,
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; PCR; ss; trauma; viral infection; parasitic infection; addiction; bacterial infection; Alzheimer's disease; Huntington's disease; anxiety; Parkinson's disease; bankiety; Parkinson's disease; alopecia; pigmentation disorder; inflammatory disorder; arthritis; ALDS; inflammatory bowel disease; Crohn's disease; cancer; adenocarcinoma; autolimmune disease; graft versus host disease; ulcer; bullmia; anorexia; dementia; gene therapy; primer.
                                                                                                                                                                                                        The present sequence is a primer used in the PCR amplification of a 267-nucleotide portion of the translocation breakpoint region of an acute nucleotide portion of the translocation breakpoint region of an acute cell hypropholistic leuksemia (ALL) infant patient MLL gene. Panels of somatic cell hybrid DNAs and radiation hybrid DNAs were screened by PCR and the location of the translocation partner gene was determined by comparing somatic chybrid panel. The invention relates to methods for the panhandle PCR amplification of a region of DNA of unknown sequence that flanks a region of a leuksemia-associated gene, especially MLL, of known sequence in a human patient. When the method was supplied to the ALL infant patient, a translocation breakpoint was identified at nucleotide 3802 of the breakpoint cluster region (bcr) of MLL, in MLL intron 8
                                                                                                                                      Amplifying an unknown region flanking a known region of the leukemia-associated MLL gene for diagnosing leukemia, comprises using a panhandle polymerase chain reaction.
                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                             ·
0
                                                                                                                                                                                                                                                                                                                                                                                     1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                Sequence 20 BP; 7 A; 4 C; 7 G; 2 T; 0 U; 0 Other;
                                                                   (CHIL-) CHILDRENS HOSPITAL PHILADELPHIA.
                                                                                           Rappaport E;
                                                                                                                                                                                     Disclosure; Col 30; 77pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human novel gene PCR primer #11
                                                                                                                                                                                                                                                                                                                                                                                                                                    852
                     97US-0038624P.
97US-0056938P.
97US-0065911P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-0265163P.
2001US-0272929P.
2001US-0274864P.
98US-00026033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-DEC-2001; 2001WO-US049122
                                                                                                                                                                                                                                                                                                                                                                                                 88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                     836 TGGTACCAGAACACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 regráccagaacaggec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABS51764 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 88.2
                                                                                           Jones DH,
                                                                                                                 WPI; 2002-360622/39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200257452-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-JAN-2001;
02-MAR-2001;
09-MAR-2001;
19-FEB-1998;
                      19-FEB-1997;
25-AUG-1997;
                                             17-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-JUL-2002
                                                                                           Felix CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABS51764;
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                    Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABS51764
```

```
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid; ubiquinone; antiinflammatory; antiallergic; antiinflammatory; hypotensive, immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy;
                                                                                                                                                                                                                                                                                                              Edinger S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to human novel polynuclectides and polypeptides. The sequences are useful for the treatment, prevention and diagnosis of disorders such as trauma, viral/parasit/c/bacterial infections, Alzheimer's disease, Puntington's disease, Perkinson's disease, behavioural disorders, anxiety, addiction, pain, hair growth diseases, alopecia, pigmentation disorder, inflammatory disorders such as osteoand rheumatonid arthritis, inflammatory bowel disease, Crohn's disease, and adenocarcinoma, asthma, hypertension, autoimmune disease, disease, obesity, graft versus host disease, ulcer, bulimia, anorexia and dementia. This sequence represents a PCR primer used to amplify human novel polynucleotides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel polypeptide, designated NOVX for treating or preventing disorders or symptoms e.g. trauma, Alzheimer's disease, cancers, acquired immunodeficiency syndrome, asthma and rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                      Spytek KA, Ballinger RA, Guo X;
Li L, Ellerman KE, Zerhusen BD;
Boldog F, Gusev VY, Burgess CE,
M, Gunther E, Smithson G, Millet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.7%; Score 13.8; DB 1; Length 20;
88.2%; Pred. No. 4.2e+02;
ative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 8 A; 2 C; 8 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               inflammation; respiratory disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 3; Page 209; 252pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human oligonucleotide sequence.
2001US-0277880P.
2001US-0286409P.
2001US-0309246P.
2001US-0315600P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP.
                                                                                                                                                                                                                                             Colman SD, Spy
Shenoy SG, Li
Casman SJ, Bc
Malyankar UM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-APR-2002; 2002WO-US013135.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-APR-2001; 2001US-0286137P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                764 GGCAGAACTGGAGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 GGCTGAACTGGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABZ92919 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 88.2
Matches 15, Conservative
                                                                                                                                                                         (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-590743/63.
```

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the initiation coodon, coding regalon, 5' or 3' end genomic flanking regions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antiallergic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an arbiect, for reducing levels of adenosine receptor, producing bronchodilation, increasing levels of biquinone or lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed of specification, but was obtained in electronic format directly from WIPO Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ftp.wipo.int/pub/published_pct_sequences Disclosure; SEQ ID NO 8161; 872pp; English. (EPIG-) EPIGENESIS PHARM INC. WPI; 2003-229219/22 Miller S, Query Match Nyce JW, Matches ò

1.7%; Score 13.8; DB 1; Length 20; 38.2%; Pred. No. 4.2e+02; ve 0; Mismatches 2; Indels Sequence 20 BP; 5 A; 6 C; 5 G; 4 T; 0 U; 0 Other; 736 N 88.2%; 720 TITCAGGAGCIGCGIA 18 rrrcagaacracada Local Similarity 88.2 nes 15; Conservative g

ABZ87869 standard; DNA; 20 17-OCT-2003 ABZ87869; RESULT 419 ABZ87869

Human oligonucleotide sequence. BP. (first entry)

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone, antinflammatory; antiallergic, antiasthmatic, hypotensive, immunosuppressive, cytostatic, gene therapy, antisense gene therapy, respiratory; lung, adenosine sensitivity; adenosine receptor, bronchoodilation, bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

23-APR-2002; 2002WO-US013135. WO200285308-A2 31-OCT-2002

Homo sapiens

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC.

ä Aguilar Pabalan J, Katz E, Li Y, Sandrasagra A, Tang L, Shahabuddin Nyce JW, I Miller S,

WPI; 2003-229219/22

Aguilar D;

Pabalan J,

Katz E,

Li Y, Sandrasagra A, K Tang L, Shahabuddin S;

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone

Disclosure; SEQ ID NO 3111; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the instantion codon, coding regalon, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubjuintone. A composition of the invention has antiinflammatory, antiallergic, antiathmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing so depleting levels of an antiinflammatory steroid in a subject, for reducing levels of adenosine receptor, producing bronchodilation, increasing levels of ubjuintone or lung surfactant in a subject stissue, or treating bronchocomstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO ftp.wipo.int/pub/published_pct_sequences

Sequence 20 BP; 4 A; 11 C; 3 G; 2 T; 0 U; 0 Other;

Gaps .; 0 Length 20; 2; Indels 1.7%; Score 13.8; DB 1; 88.2%; Pred. No. 4.2e+02; 0; Mismatches Conservative

. 0

g

ö

Gaps

; 0

Human oligonucleotide sequence B ABZ85249 standard; DNA; 20 (first entry) 17-0CT-2003 ABZ85249; ABZ85249

Human, antisense, lung dysfunction, nasal airway dysfunction; antinflammatory; antiallergic; antinflammatory; antiallergic; antiaflammatory; antiallergic; antiathmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation, respiratory disease; ds

23-APR-2002; 2002WO-US013135. 24-APR-2001; 2001US-0286137P.

WO200285308-A2.

31-OCT-2002.

```
08-NOV-2001; 2001US-00008789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003040328-A2
                                      US6448081-B1
                                                              10-SEP-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-AUG-2003
                                                                                                                                                                                                                                                          diagnostics.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACC82881;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACC82881
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonuclectide antisense to the initiation condon, coding regalon, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antialergic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an prinflammatory steroid in a subject, for reducing levels of an enceptor, producing bronchodilation, increasing levels of ubiquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence date for this patent is not represented in the printed of the first with interval.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                    Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human interleukin 12 p40 subunit antisense oligonucleotide ISIS #139173.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mod_base= OTHER
/note= "All cytosines are 5-methylcytidines and the
nucleotides are linked via a phosphorothioate backbone"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                        Katz E, Pabalan J, Aguilar D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human, ss, antisense, interleukin 12 p40 subunit, antibacterial,
antiinflammatory, cytostatic, infection, inflammation, tumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= b
/mod bass= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides"
/fe. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.7%; Score 13.8; DB 1; Length 20; 38.2%; Pred. No. 4.2e+02; ve. 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 4 A; 8 C; 2 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                            ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                  Claim 15; SEQ ID NO 491; 872pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       location/Qualifiers
                        Sandrasagra A, Ka
L, Shahabuddin S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               324 AGAGAAGCTGTGGAGCA 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP.
(EPIG-) EPIGENESIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17 AGAGATGCTGTGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABX34000 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 88.2
nes 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .20
/*tag=
                        Li Y, Sar
Tang L,
                                                             WPI; 2003-229219/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-FEB-2003
                                                                                                                             ubiquinone.
                        Nyce JW,
Miller S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABX34000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABX34000
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

```
New antisense chimeric oligonucleotide, useful for modulating the expression of human Interleukin 12 p40 subunit, in treating or preventing disease states in humans and animals, and as research reagents and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to an antisense compound 20-50 nucleobases in length targeted to a start codon region, coding region, a stop codon region of a 1'-untranalated region of a nucleic acid molecule encoding human Interleukin 12 p40 subunit. The compound specifically hybridises with one of the region and inhibits the expression of human Interleukin 12 p40 subunit. The new compound is useful for inhibiting the expression of human interleukin 12 p40 subunit in cells or tissues and comprises contacting the cells or tissues and comprises expression of the human Interleukin 12 p40 subunit is inhibited. The antisense compound may also be used as research reagents and diagnostics, and as treatment or prevention of disease states, e.g. to prevent or delay infection, inflammation or tumour formation, in animals and humans. The present sequence is an antisense oligonucleotide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human, antisense, thyroid hormone receptor interactor 6, TRIP6, tumour; ODA-interacting protein-1, OIP-1, zyxin-related protein-1, prophylaxis; inflammation, therapy; hyperproliferative disorder; infection; cancer; chromosome 7q22; ZRP-1, PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ·,
/mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.7%; Score 13.8; DB 1; Length 20;
18.2%; Pred. No. 4.2e+02;
ve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 6 A; 5 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human TRIP6 DNA specific forward PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 3; Col 45; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВР.
                                                                                                                                                                                                                                                                                                                                                              07-MAY-2001; 2001US-00851062.
                                                                                                                                                                                                                                                                                   07-MAY-2001; 2001US-00851062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-NOV-2002; 2002WO-US035479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    835 CTGGTACCAGAACACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 CTGGTATCAGAACACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACC82881 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                             (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Baker BF, Freier SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-074100/07.
```

ö

```
The invention relates to antisense compounds targetted to a nucleic acid encoding thyroid hormone receptor interactors ( FRIEB) to inhibit its expression. TRIPG is also known as OpA-interacting protein-1 (OIP-1) and zyxin-related protein-1 (ZRP-1). TRIPG DNA is located on chromosome 7022. Antisense compounds of the invention are useful for modulating the expression of TRIPG such as hyperproliferative disorders (e.g. cancer). They are useful for diagnostics, therapeutics, prophylaxis e.g. to prevent or delay infection, inflammation or tumour formation, as research reagents and kits and in distinguishing between functions of various members of a biological pathway. The are also useful in antisense therapy. The present sequence is human TRIPG DNA specific PCR primer, used in the exemplification of the invention
                                                                                                    New antisense oligonucleotides targeted to nucleic acids encoding thyroid hormone receptor interactor 6, useful for diagnosing or treating hyperproliferative disorders, such as cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mod_base= OTHER
/note= "Phosphorothicate backbone; All cytidines are 5-
methylcytidines"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; activating transcription factor 3; ATF3; ischaemia; diabetes;
liver regeneration factor-1; LRF-1; antisense therapy; CRG-5; LRG-21;
TI-241; phosphorothioate backbone; antisense; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /mod_base= OTHER
/note= "2'methoxyethyl nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mod_base= OTHER
/note= "2'methoxyethyl nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human ATF3 antisense oligonucleotide, ISIS 185461.
                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 4 A; 2 C; 9 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                      Example 13; Page 74; 111pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    320 CTGCAGAGAAGCTGTGG 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCGGAGAAGATGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAL61478 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= b
                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity Be.د.
مادات 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . 20
                (ISIS-) ISIS PHARM INC
                                            Bennett CF, Dobie K;
                                                                          WPI; 2003-430662/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003040161-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAL61478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

18

ВЪ

υ

```
The invention relates to antisense compounds, compositions and methods for modulating the expression for activating transcription factor 3 (ATF3): also known as liver regeneration factor—1 (LRF-1), CRG-5, LRG-21, and TI-241. The invention is useful for the diagnosis, prevention and/or treatment of diseases or conditions associated with aberrant expression or activity of ATF3, such as ischaemia and diabetes. The antisense compound is useful in antisense therapy. The present sequence is an antisense oligomucleotide targetted to human ATF3 DNA. This sequence is used to illustrate the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Identifying antibiotic tolerant bacteria, especially antibiotic tolerant Streptococcus pneumoniae, by determining whether the bacteria has type 4 or R6 allele of vex2 and pep27 gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vex2; ss; PCR; primer; SNP; single nuclectide polymorphism; antibiotic tolerance; type 4 allele; R6 allele; pep27; penicillin; vancomycin; vex/pep27/vncr/s operon; pneumococcus; autolytic enzyme; LytA; signal peptide; VncS; VncR; beta-lactam.
                                                                                                                                                                                   New antisense oligonucleotide compounds, useful for diagnosing, preventing and/or treating conditions with aberrant activity of the activating transcription factor 3, such as ischemia and diabetes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Forward PCR primer amplifying pep27 SNP containing gene fragment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.7%; Score 13.8; DB 1; Length 20;
88.2%; Pred. No. 4.2e+02;
tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 7 A; 6 C; 3 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HOSPITAL.
                                                                                                                                                                                                                                                    Example 15; Page 77; 126pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SJUD-) ST JUDE CHILDREN'S RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                827 TGCTGAAGCTGGTACCA 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABX10658 standard, DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCTAAACCTGGTACCA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-NOV-2001; 2001US-00054225.
                04-NOV-2002; 2002WO-US035331.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .3-NOV-2001; 2001US-00054225
                                                08-NOV-2001; 2001US-00010002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tuomanen EI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Streptococcus pneumoniae
                                                                                 (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-238303/23
                                                                                                                                                    WPI; 2003-441517/41
                                                                                                                 Dobie K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JS2002164623-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Atkinson RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABX10658;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 424
ABX10658/C
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
```

Gaps

; 0

ô

```
RESULT 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACF62728,
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음
                                      The invention discloses a method for determining whether a bacteria is likely to be tolerant to an antibiotic. The method comprises determining whether the bacteria has a type 4 or R6 allele of the vex2 gene and pep27 genes are closely associated with tolerance to periolilin and vancomycin, and the bacteria is determined to be likely to be tolerant if it has a type 4 allele of the vex2 gene and an R6 allele of the pep27. Also disclosed are PCR primers which can be used to amplify the regions of the vex2 and pep27 genes which can be used to amplify the regions of the vex2 and pep27 genes which can be used to amplify the regions of the vex2 and pep27 genes which can be used to vex/pep21/vncr/s operon encoding the major pneumococcal autolytic enzyme. UttA. The operon encodes for a signal peptide, Pep27, that is transported out of the cell via the vex dedicated transporter. Once it reaches a critical density in the supernatant, it signals through the two-component regulatory system, VncS and VncR, which subsequently induces activation of LytA. Mutations in any one of the operon genes prevents proper signaling, resulting in a lack of LytA activation and antibiotic conformation in the supernation of the cell and antibiotic whether a subject on a nantibiotic, preferably a beta-lactam such as the conventional conformation of the subject with chose antibiotics. The method is rapid and correctly predicts whether a subject can be successfully treated with a particular antibiotic can be successfully treated with a particular antibiotic can be avoided so that alternative frequence of the conventional antibiotic can be avoided so that alternative frequence of the forward PCR of the proper forward thich was used to amplify the S. pneumoniae pep27 SNP containing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; high bone mass; HBM; LRP5; LRP6; transgenic; bone mass modulation, gene therapy; bone density modulation; bone strength; trabbecular number; bone size; bone tissue connectivity; bone disease; osteoporosis; PCR; osteomalacia; rickets; Paget's disease; neoplasm of the bone; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 13.8; DB 1; Length 20;
Pred. No. 4.2e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 3 A; 3 C; 8 G; 6 T; 0 U; 0 Other,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human HBM STS marker reverse primer #39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENO-) GENOME THERAPEUTICS CORP.
AMHP ) WYETH.
Claim 14; Page 4; 11pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               454 CCTTCCAGGAAGAGCTC 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-MAY-2001; 2001US-0290071P.
17-MAY-2001; 2001US-0291311P.
01-FEB-2002; 2002US-0353058P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.7%;
88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17 ccarccagcaagacrc 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-MAY-2002; 2002WO-US014876.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-MAR-2002; 2002US-0361293P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACC45499 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUN-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200292764-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-NOV-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 425
ACC45499
```

g

```
The invention relates to novel transgenic animals expressing the high bone mass (HBM) gene, expressing the corresponding wild type HBM gene, comprising an alteration of the gene encoding LRP5 or EAR6. Or expressing comprising an alteration of the gene encoding LRP5 or EAR6. Or expressing by homologous or non-homologous recombination. The transgenic animals are for the study of bone density modulation. The transgenic animals are for the study of bone therapy. The transgenic animals and nucleic acids are for the study of bone density modulation, where the composition may have a use in gene therapy. The transgenic animals and nucleic acids are for the study of bone density modulation, where the come mass is andulated relative to non-transgenic animals in more than one parameter selected from bone density, bone strength, trabecular number, bone size, or bone tissue connectivity. The transgenic animals, nucleic acids and methods are useful for identifying molecules involved in bone development, and for developing pharmaceutical compositions, which may be employed for treating or preventing bone diseases, e.g. osteopharms, of the bone. The transgenic animals and nucleic acids are also useful in methods for diagnosing diseases involved in bone development, or meast requence is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                        New transgenic animals (e.g. mice), useful as models for studying bone density modulation, developing drugs for treating or preventing bone diseases (e.g. osteoporosis), or diagnosing diseases characterized by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cancer, CYP3A5; irinotecan, pharmaceutical, malignant glioma; cytochrome p450; subfamily IIIA; nifedipine oxidase; polypeptide 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.7%; Score 13.8; DB 1; Length 20;
88.2%; Pred. No. 4.2e+02;
ative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 6 A; 5 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              used in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PLA2 forward PCR primer SEQ ID NO:656.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (EPID-) EPIDAUROS BIOTECHNOLOGIE AG.
                                                                                                                                                                                                   Disclosure; Page 54; 603pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    829 CTGAAGCTGGTACCAGA 845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-JUL-2002; 2002WO-EP008219.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-JUL-2001; 2001EP-00117608.
24-MAY-2002; 2002EP-00011710.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 crcaaccaccaccaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACF62728 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cytostatic; PCR primer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-OCT-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 1.7
Best Local Similarity 88.2
Matches 15, Conservative
                                                                                                                   diseases (e.g. osteopreduced bone density.
WPI; 2003-129278/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003013534-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Heinrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACF62728;
```

WPI; 2003-268144/26

Bodine PV;

Yaworsky PJ,

Bex FJ,

Babij P,

```
The present invention describes the use of irinotecan (I) or its derivative for the preparation of a pharmaceutical composition for treating colorectal, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject having a genome with a variant allele which comprises a cytochrome p450, subfamily IIIA (nifediplne coxidase), polypeptica groundlectide (II). (I) and (II) have cytostatic activity. The therapeutic applications of (I) is improved, since it is possible to individually treat a subject with an appropriate desawage and/or an appropriate derivative of (I). Therefore, undesirable, contained or toxic effects are efficiently avoided. Unnecessary and contramentally harmful treatment of those subjects who do not respond to the treatment with substances (nonresponders), as well as the development of the present invention sequences used in the complification of the present invention
          New use of irinotecan for preparation of compositions for treating cancer in subject having genome with variant allele comprising cytochrome p450, subfamily IIIA, polypeptide 5 polynucleotide, termed CYP3A5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Use of irinotecan or its derivative for preparation of a pharmaceutical composition for treating cancer in a subject having a genome with a variant allele comprising a multidrug resistance protein 1 polynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   irinotecan; colorectal cancer; cervical cancer; gastric cancer; lung cancer; malignant glioma; variant allele; multidrug resistance protein 1; MRP1; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
                                                                                                                                                                                                                                                                                                                                                                                                                       1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                          Seguence 20 BP; 6 A; 5 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PLA2 forward PCR primer SEQ ID NO:656.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (EPID-) EPIDAUROS BIOTECHNOLOGIE AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 4; Page 69; 100pp; English.
                                                                               Example 4; Page 60; 86pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGCCATCTCAACCAGC 629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-JUL-2002; 2002WO-EP008200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-JUL-2001; 2001EP-00117608
24-MAY-2002; 2002EP-00011710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGCCTTCTGAACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADB20843 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 88.4.
Best Local Similarity 88.4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Heinrich G, Kerb R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-354397/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO2003013533-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCR primer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-FEB-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADB20843;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
```

÷

```
ö
    The present invention describes a method for the use of irinotecan (I) or its derivative for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant gliona in a subject having a genome with a variant allele which comprises a multidrug resistance protein 1 (MRP1) polynucleotide (II). (I) has cytostatic activity. (I) or its derivative can be used for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant gliona in a subject, where the subject is a human (preferably African or Asian) or a mouse. The present sequence represents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human, CD36 antigen-like 1, CD36L1, scavenger receptor class B type 1, CLA-1, SRB1, SR-BI, cardiovascular, metabolic disorder, atherosclerosis, lipid metabolism, gene therapy, phosphorothioate backbone; antisense; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /notē= "Phosphorothioate backbone; All cytidines are
methylcytidines"
                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New compound, having a sequence targeted to a nucleic acid encoding CD36L1, useful for preparing a composition for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human CD36 antigen-like 1 (CD36L1) antisense oligo, ISIS 199354.
                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag= b
/mod_base= OTHER
/mod_base= 12'methoxyethyl nucleotides"
16. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "2'methoxyethyl nucleotides"
                                                                                                                                                                                                       Sequence 20 BP; 6 A; 5 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
1. .20
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= c
/mod_base= CTHER
                                                                                                                                                                                                                                                                                             613 TGGCCATCTCAACCAGC 629
                                                                                                                                                                                                                                                                                                                                                                                                   BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-DEC-2002; 2002WO-US039183.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .8-DEC-2001; 2001US-00024396
                                                                                                                                                                                                                                                                                                                           rescenteraaccase
                                                                                                                                                                                                                                                                                                                                                                                                   AAL62687 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                               15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-533006/50.
                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003052062-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nodified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SISI (-SISI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAL62687;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dobie KW;
                                                                                                                                                                                                                                                                                                                           17
                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                     RESULT 428
                                                                                                                                                                                                                                                                                                                                                                                      AAL62687
                                                                                                                                                                                                                                                                                                                                                                                                     X0000000000000XX
                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                        g
```

Fri

```
Allen K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADB98197
 à
                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                       ö
                                                  The invention relates to antisense compounds, compositions and methods for modulating the expression of class B scavenger receptor, CD36 antigen-like 1 (BD361). CD3611 is also known as scavenger receptor class B type useful for preparing a composition for treating metabolic or cardiovascular disorder, e.g. altered lipid metabolism or atherosclerosis. It is also used in gene therapy. The present sequence is an antisense oligonocleotide targetted to human CD3611 DNA. This sequence is used to illustrate the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to amplifying an unknown region that flanks a known region of a cancer-associated DNA sequence comprising providing a template polynucleotide, ligating a loop-forming oligonucleotide to the 3'-end of the sense strand, annealing the loop-forming oligonucleotide with the first portion to generate a panhandle structure, subjecting the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Amplifying an unknown region that flanks a known region of a cancerassociated DNA sequence by subjecting the panhandle structure to extension and to PCR in the presence of a first primer homologous to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human, ss; MLL; cancer; AF-4; CDK-6; SEPTIN6; ALL;
acute lymphoblastic leukaemia; AML; acute myeloid leukaemia;
chromosomal break point; chromosome 11q23; ATF; BCR; B cell receptor;
                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                         Query Match 1.7%; Score 13.8; DB 1; Length 20; Best Local Similarity 68.2%; Pred. No. 4.2e+02; Matches 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human MLL/AF-4 breakpoint region mapping primer #2.
                                                                                                                                                                                                Sequence 20 BP; 4 A; 5 C; 8 G; 3 T; 0 U; 0 Other;
 hyperproliferative or autoimmune disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rappaport E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page 18; 80pp; English.
                         Claim 3; Page 82; 122pp; English
                                                                                                                                                                                                                                                                                 200
                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0038624P.
97US-0056938P.
97US-0065911P.
98US-00026033.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-APR-2002; 2002US-00118783.
                                                                                                                                                                                                                                                                                 184 ACAGTGGCCGGGTCAGT
                                                                                                                                                                                                                                                                                                            4 AGAGTGGCCGGCTCAGT
                                                                                                                                                                                                                                                                                                                                                                               ADB73397 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Jones DH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (FELI/) FELIX C A.
(JONE/) JONES D H.
(RAPP/) RAPPAPORT E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-606415/57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US2003096255-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        second portion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-FEB-1997;
25-AUG-1997;
17-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                      04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GA,
                                                                                                                                                                                                                                                                                                                                                                                                             ADB73397;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         primer.
                                                                                                                                                                                                                                                                                                                                                      RESULT 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Felix
```

```
panhandle structure to extension, and subjecting the panhandle structure to PCR in the presence of a first primer homologous to the second portion, where the unknown region is amplified. In the method of amplifying an unknown region that flanks a known region of a cancerassociated DNA sequence, the template polynucleotide comprises a sense strand, comprising the known and unknown regions. The unknown region is nearer the 3'-end of the sense strand than is the known region is nearer the unknown region is nearer the unknown region than is the second portion. The loop-forming oligonucleotide is complementary to the first portion. The third region complementary to the second portion to the third region complementary to the second portion. The third region complementary to the second portion. The third region complementary to the second portion. The third region complementary to the second portion. The third region complementary to the second portion is generated at the free end of the loop-forming oligonucleotide. The cancer-associated DNA sequence comprises ATPI (not defined) or BCR (B call receptor). The method is useful for amplifying an unknown region that flanks a known region of a cancer-associated DNA sequence. Also disclosed as new is the use of the method in the analysis of the breakpoint region of the human MLL gene, where the chromosomal breaks results in gene fusions with AF-4, CDN-6 and leukaemia and acute myeloid leukaemia). MLL is located on chromosome liga3. The present sequence is a primer used in the analysis of the MLL breakpoint region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence tagged site #78 used to prepare map of Zmax1 (LRP5) gene region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New nucleic acid comprising a mutation in LRP5 or LRP6, useful for diagnosing a HBM-like phenotype in a subject and for preparing a composition for modulating bone mass and/or lipid levels in a subject suffering from e.g. osteoporosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Liu W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Osteopathic, Gene therapy; High Bone Mass; HBM; LRP5; Zmax1; LRP6, bone mass modulation; osteoporosis; STS; sequence tagged site; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yaworsky PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 13.8; DB 1; Length 20; Pred. No. 4.2e+02; 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 7 A; 4 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Morales A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Graham JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 2; Page 61; 629pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENO-) GENOME THERAPEUTICS CORP. AMHP ) WYETH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-MAY-2001; 2001US-0291311P.
01-FEB-2002; 2002US-0353058P.
04-MAR-2002; 2002US-0361293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-MAY-2002; 2002WO-US014877.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-MAY-2001; 2001US-0290071P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        836 TGGTACCAGAACACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADB98197 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 TGGTACCAGAACAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 1.7
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anisowicz A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-129214/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200292000-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-NOV-2002.
```

Length 20;

Gaps

```
The invention relates to the novel use of irinotecan to treat a patient suffering from cancer. This involves determining if the patient has one or more variant alleles, of the UGTIA1 gene, and if the patient has one or more of such variant alleles, irinotecan is administered in an increased or decreased amount in comparison to the amount that is administered without regard to the patient's alleles in the UGTIA1 gene. The invention has cytostatic activity. A composition of the invention acts as a nimple e.g. mouse or a human, preferably African or Asian, suffering from cancer such as colorectal, generical, gastric cancer, lung, ovarian, pancreatic cancer or malignant glioma. The present sequence is udes in the exemplification of the invention.
                      LRP6 mutants, which results in a HBM-like phenotype when expressed in a cell. The HBM-like phenotype results in bone mass modulation and/or lipid phenotype in a subject and for preparing a composition for modulating bone mass and/or lipid levels in a subject suffering from e.g. osteoporosis. The present sequence is a Sequence Tagged Site (STS) marker, which was used to prepare a physical map of the Zmaxl (LRPS) gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Use of irinotecan to treat cancer patient by determining if patient has variant alleles of UGTIAl gene, administering increased/decreased amounts of irinotecan based on increased/decreased levels of UGTIAl gene product.
invention relates to High Bone Mass (HBM), LRPS (Zmax1) and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          irinotecan; cancer; UGILAL; cytostatic; topoisomerase I inhibitor; colorectal cancer; cervical cancer; gastric cancer; lung cancer; ovarian cancer; pancreatic cancer; malignant glioma; uridine diphosphate glycosyltransferasel member Al; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                        1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 6 A; 5 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; SEQ ID NO 656; 107pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human UGT1A1 gene sequence SEQ ID NO:656.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (EPID-) EPIDAUROS BIOTECHNOLOGIE AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           829 CTGAAGCTGGTACCAGA 845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-JUL-2002; 2002WO-EP008217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-JUL-2001; 2001EP-00117608.
24-MAY-2002; 2002EP-00011710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADB87932 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Heinrich G, Kerb R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-289896/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2003013536-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADB87932
                                                                                                                                                                                                                                                                                           region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 43:

ADB87332/A
ADB87332/A
ADB87332/A
ADB87332/A
ADB87332/A
ADB87332/A
ADB87332/A
B
AXX ADB87332/A
ADB773-A
ADB87332/A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB773-A
ADB
   888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to the novel use of irinotecan or its derivative for the preparation of pharmaceutical compositions for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject having a genome with a variant allele which comprises a multidrug resistance 1 (MDR1) polynucleotide. A composition of the invention has cytostatic activity. The invention is useful for the preparation of pharmaceutical compositions for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignant glioma in a subject (preferably human, more preferably African or Asian) or a mouse. The present sequence is used in the exemplification of the
                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New use of irinotecan for preparation of pharmaceutical compositions for treating cancer in subject having genome with variant allele comprising multidrug resistance 1 polynucleotide.
                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                    irinotecan; colorectal cancer; cervical cancer; gastric cancer;
lung cancer; ovarian cancer; pancreatic cancer; malignant glioma;
multidrug resistance 1; MDR1; cytostatic; human; Cyp3A5; MRP1; MDR1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred, No. 4.2e+02; ve 0; Mismatches 2; Indels
                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 6 A; 5 C; 6 G; 3 T; 0 U; 0 Other;
Score 13.8; DB 1;
Pred. No. 4.2e+02;
                                                                                                                                                                                                                                                                                        Human MDR1 related DNA sequence SEQ ID NO:656.
                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; SEQ ID NO 656; 130pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (EPID-) EPIDAUROS BIOTECHNOLOGIE AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   613 TGGCCATCTCAACCAGC 629
                                                                   613 TGGCCATCTCAACCAGC 629
                                                                                                                                                                                    ADB96915 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-JUL-2001; 2001EP-00117608.
24-MAY-2002; 2002EP-00011710.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-JUL-2002; 2002WO-EP008218.
 1.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17 TGGCCTTCTGAACCAGC
                                                                                                                                                                                                                                                      (first entry)
   Query Match 1.7
Best Local Similarity 88.2
Matches 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-268145/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                           WO2003013537-A2.
                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                        04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Heinrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15;
                                                                                                                                                                                                                        ADB96915;
                                                                                                     17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                        ADB96915,
                                                                                                                                                                                                      셤
```

RESULT 433 ADB92106/c

20 BP; 6 A; 5 C; 6 G; 3 T; 0 U; 0 Other;

Sequence

```
drug; binding inhibitor; hepatocyte growth factor recptor; HGF; c-Met;, c-Met zelulatory mucin; Mermuc; HGF-dependent cell proliferation; tissue; organ; blood vessel; mucous membrane; bone; nerve formation; repair; regeneration; neogenesis; hepatotropic; nephrotropic; remariant-riosclerotic; antiinflammatory; virucided; liver; hepatic sclerosis; hepatic fibrosis; symptomatic; acute; viral hepaticis; kidney; chronic kidney disease; lung; arteriosclerosis; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New use of irinotecan for preparation of pharmaceutical compositions for treating cancer in subject having genome with variant allele comprising multidrug resistance 1 polynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates ro a novel use of irinotecan or its derivative for the preparation of a pharmaceutical composition for treating colorectal, cervical, gastric, lung, ovarian or pancreatic cancer, or malignance glioma in a subject having a genome with a variant allele which comprises a multidrug resistance 1 (MDR1) polynucleotide. A composition of the invention has cytostatic activity. The present sequence is used in the exemplification of the invention.
                                                                                                                                   irinotecan; colorectal cancer; cervical cancer; gastric cancer;
lung cancer; ovarian cancer; pancreatic cancer; malignant glioma;
multidrug resistance 1; MDR1; cytostatic; human; UGT1A1; MRP1; TOP1; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hepatocyte growth factor (HGF) receptor related primer, SEQ ID No 26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.7%; Score 13.8; DB 1; Length 20;
88.2%; Pred. No. 4.2e+02;
tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 6 A; 5 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                    Human MDR1 related DNA sequence SEQ ID NO:656.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 656; 104pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                (EPID-) EPIDAUROS BIOTECHNOLOGIE AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      629
BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP
                                                                                                                                                                                                                                                                                                            23-JUL-2002; 2002WO-EP008220
                                                                                                                                                                                                                                                                                                                                               23-JUL-2001; 2001EP-00117608.
24-MAY-2002; 2002EP-00011710.
standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      613 TGGCCATCTCAACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17 TGGCCTTCTGAACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADB61553 standard; DNA; 20
                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-342400/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                        WO2003013535-A2
                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-DEC-2003
                                                                 04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unidentified
                                                                                                                                                                                                                                                                           20-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                   Heinrich G,
ADB92106
                                ADB92106,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADB61553;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADB61553
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
```

comprises

```
The invention relates to a novel drug composition containing a substance active in inhibiting the binding of the hepatocyte growth factor (HGF) receptor c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.Met to c.M
                                                                                                                                                                                                                                                                                                                                                                                        Drug composition containing regulator of binding of HGF receptor c-Met to a regulatory mucin for treatment and prevention of liver, kidney and lung disease by regulation of cell proliferation and tissue formation and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Allele-specific PCR; nucleic acid detection; molecular biology; polymorphism; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 7 A; 3 C; 8 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 13.8; DB 1;
Pred. No. 4.2e+02;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                 Orita T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nucleotide sequence of a reverse primer 20T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag= a
/note= "T^H, T^et, T^vin"
                                                                                                                                                                                                                                                                                              Yamasaki Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 4; Page 199; 223pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP.
                                                                                                                      12-DEC-2002; 2002WO-JP013014.
                                                                                                                                                                   13-DEC-2001; 2001JP-00380158
04-DEC-2002; 2002JP-00352924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 1.7%;
Best Local Similarity 88.2%;
Matches 15; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-FEB-2003; 2003WO-EP001725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               671 GAAGCTCACAGATGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACF36466 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGCACACAGATGGGT
                                                                                                                                                                                                                                            (NISB ) JAPAN TOBACCO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                              Higuchi T,
                                                                                                                                                                                                                                                                                                                                                WPI; 2003-541790/51
                  WO2003053467-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003072814-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Key
modified_base
                                                                                                                                                                                                                                                                                            Nakamura M,
                                                                    03-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACF36466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repair.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 435
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

ö

Gaps

. 0

.. 0

26-FEB-2002; 2002EP-00004221.

```
(HOFF ) ROCHE DIAGNOSTICS GMBH. (HOFF ) HOFFMANN LA ROCHE & CO AG F.
                  Hahn M, Tew
Summerer D;
                               WPI; 2003-721786/68.
                   Pingoud A, F
Strerath M,
```

The invention relates to determining presence of at least one sequence variant (SV) in one or more target nucleic acids (NA) in a sample. The method is used in molecular biology, diagnosis and prognosis to detect specific alleles, particularly point mutations or polymorphisms. The method improves specificity of detection of a particular variant (in known methods some primer extension can occur even from a mismatched primer, leading to false positive results), and the discriminating primer used not be 3 -terminal. The present sequence represents a PCR primer used in the method of the invention Determining presence of specific nucleic acid variant, useful e.g. for diagnosis, by allele-specific amplification with a discriminating primer having a nucleotide modified at position 4 of the sugar. Sequence 20 BP; 4 A; 3 C; 8 G; 5 T; 0 U; 0 Other; Example 7; Page 19; 40pp; English

1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; Artive 0; Mismatches 2; Indels 745 CCITGGICCITAAGGAG 761 17 CGTTGGTCCTGAAGGAG Best Local Similarity 88.2 Matches 15, Conservative

Allele-specific PCR; nucleic acid detection; molecular biology; polymorphism; PCR; primer; ss. Nucleotide sequence of a 3'proxi-terminal modified primer 20T. ACF36461 standard; DNA; 20 (first entry) 18-DEC-2003 ACF36461

BP.

/*tag= a /note= "T^H, T^me, T^et, T^vin" Location/Qualifiers /*tag= Key modified_base Synthetic

WO2003072814-A2

20-FEB-2003; 2003WO-EP001725 04-SEP-2003

(HOFF) ROCHE DIAGNOSTICS GMBH. (HOFF) HOFFMANN LA ROCHE & CO AG F. 26-FEB-2002; 2002EP-00004221.

Tews B, Wilhelm J, Friedhoff P, r D; Hahn M, Te Summerer L Pingoud A, i Strerath M,

Marx A;

WPI; 2003-721786/68

Determining presence of specific nucleic acid variant, useful e.g. for diagnosis, by allele-specific amplification with a discriminating primer having a nucleotide modified at position 4 of the sugar.

Example 6; Page 18; 40pp; English

Marx A;

Friedhoff P,

B, Wilhelm J,

Tews

PCR The invention relates to determining presence of at least one sequence variant (SV) in one or more target nucleic acids (NA) in a sample. The method is used in molecular biology, diagnosis and prognosis to detect specific alleles, particularly point mutations or polymorphisms. The method improves specificity of detection of a particular variant (in known methods some primer extension can occur even from a mismatched primer, leading to false positive results), and the discriminating nucleotide need not be 3'-remainal. The present sequence represents a primer used for primer extension by Vent(exo-) DNA polymerase

Sequence 20 BP; 4 A; 3 C; 8 G; 5 T; 0 U; 0 Other;

Gaps . 0 / Match 1.7%; Score 13.8; DB 1; Length 20; Local Similarity 88.2%; Pred. No. 4.2e+02; les 15; Conservative 0; Mismatches 2; Indels Query Match Best Loca Matches

ö

745 CCTTGGTCCTTAAGGAG 761

g

148/c AAD62148 standard; DNA; 20 BP AAD62148; AAD6214

0

Gaps

. 0

Streptococcus pneumoniae p27 DNA amplifying PCR primer #1.

(first entry)

15-JAN-2004

Antibiotic; blood poisoning; tuberculosis; dysentery; preservative; gonorrhoea; middle ear infection; pneumonia; drug selection marker; meningitis; antibacterial; gynaecological; tuberculostatic; PCR; primer;

Streptococcus pneumoniae.

US6630583-B1.

28-JAN-2000; 2000US-00493940. 07-OCT-2003.

06-MAY-1998; 98US-0084399P, 99US-00305984

(SJUD-) ST JUDE CHILDREN'S RES HOSPITAL.

Novak R, Tuomanen EI;

WPI; 2003-810553/76.

New isolated nucleic acid encoding a peptide that kills both wild type pneumococci and a strain of Pneumococcus that is autolysin deficient, useful for treating or preventing bacterial infections or inflammations.

Example 13; Col 121; Opp; English

The invention relates to novel nucleic acids encoding antibiotic peptides that kill both wild type pneumococci and a strain of Pneumococcus that is autolysin deficient. Antibiotic peptides of the invention are useful for treating or preventing bacterial infections or inflammations. They are useful in preventing or treating disease caused by a bacterium such as Estaphylosoccus aureus. Enterococcus faccalis, Pseudomonas aeruginosa, Escharichia coli, Acetobacter which all cause blood poisoning, Mycobacterium tuberculosis which causes tuberculosis, Shigella dysenteria

8888888888888

8 a

```
ADD94838 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCCCCAGCAGGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Panina P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BIOX-) BIOXELL SPA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-876908/81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THOM/) THOMAS N C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003080667-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Colonna M,
        disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADD94838;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADD94838/c
      E_{XXX}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                            ö
which causes dysentery, Neisseria gonorrhoeae which causes gonorrhoea, Streptococcus pneumoniae which causes blood poisoning, pneumonia, middle ear infections and meningitis in humans. The peptides can be employed as preservatives or as part of a composition used as preservatives. They can also be used as a laboratory tool, e.g. in conjunction with one or more bacteria and as drug selection markers. The present sequence is Streptococcus pneumoniae p27 bNA amplifying PCR primer. This sequence is used in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= b
/mod_bass= OTHER
/note= "Phosphorothioate backbone and all cytidines are 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antisense gene therapy; apoptosis; hyperproliferative disorder; handeactopictic disorder; autoimmune disorder; viral infection; AIDS; neurological disorder; Alzheimer's disease; Parkinson's disease; amyotrophic lateral sclerosis; retinitis pigmentosa; blood cell disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New compounds, particularly antisense oligonucleotides targeted to a nucleic acid encoding caspase 8, useful for treating a disease/condition associated with caspase 8, such as hyperproliferative or autoimmune
                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                1.7%; Score 13.8; DB 1; Length 20;
88.2%; Pred. No. 4.2e+02;
1ve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Caspase-8; cytostatic; immunosuppressant; anti-HIV; ss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mouse caspase-8 antisense oligonucleotide ISIS 107719.
                                                                                                                                                                           Sequence 20 BP; 3 A; 3 C; 8 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mod_base= OTHER
/note= "2'-methoxyethyl residues"
16. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mod_base= OTHER
/note= "2'-methoxyethyl residues"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                             454 CCTTCCAGGAAGACTC 470
                                                                                                                                                                                                                                                                                                                                                                                                                                   BP.
                                                                                                                                                                                                                                                                                                                                    CCATCCAGCAAGAGCTC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-JAN-2000; 2000US-00487445.
11-JAN-2001; 2001WO-US000955.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-JUL-2002; 2002US-00181177.
                                                                                                                                                                                                                                   88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                 ADD25070 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          *tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= c
                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ZHAN/) ZHANG H.
(COWS/) COWSERT L M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-810793/76.
                                                                                                                                                                                                                                   Local Similarity
Les 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2003083296-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancer; mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-2003
                                                                                                                                                                                                                                                                                                                                  17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADD25070;
                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zhang H,
                                                                                                                                                                                                                                         Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                            RESULT 438
```

```
The invention relates to a compound 8-30 mucleobases in length targeted to, and which specifically hybridises with a nucleic acid molecule encoding caspase 8 (a protein involved in appotosis), and inhibits the expression of caspase 8, i.e. an antisense oligomucleotide. Also included are a compound 8-30 nucleobases in length that specifically hybridises with at least an 8-uncleobases portion of an active site on a nucleic acid molecule encoding caspase 8, a composition comprising the compound and a carrier or diluent, inhibiting the expression of caspase 8 in cells or tissues with the compound so that expression of caspase 8 is inhibited) and treating an animal having a disease or condition associated with caspase 8 by administering to the animal a therapeutic or prophylactic amount of the compound so that a cappassion of caspase 8 is inhibited. The compound, composition and methods are useful for treating a disease or condition associated with caspase 8, such as hyperproliferative, haematopoietic or autoimmune caspase 8, such as hyperproliferative, haematopoietic or autoimmune caspase 8, viral infection such as AIDS, neurological disorders (e.g. Alzhaimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, retinitis pigmentosa), blood cell disorders and cancer. They are also useful in research and diagnostics for modulating the expression of interleukin 8. The present sequence is a caspase-8 targeting antisense oligonucleotide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic acid encoding a TREM-4 or TREM-5 polypeptide, useful for treating e.g. inflammatory disorder, cancer, infertility or heart disease affecting microvascular compartments.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 human, TREM-4, TREM-5, cardiant, antiinflammatory, cytostatic, antiinfertility; inflammatory disorder, cancer, infertility disease, heart disease, PCR primer, ss, chromosome 17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11.7%; Score 13.8; DB 1; Length 20;
18.2%; Pred. No. 4.2e+02;
ve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 2 A; 8 C; 4 G; 6 T; 0 U; 0 Other;
Claim 3; SEQ ID NO 127; 59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human TREM-5 PCR primer SEQ ID NO:61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   405 CIGCICCAGCAGGCICI 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-MAR-2003; 2003WO-GB001231.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-MAR-2002; 2002US-0366525P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88.2%;
```

SEQ ID NO 61; 152pp; English Example; $\overset{\circ}{\mathbf{x}}\overset{\circ}$

The present invention describes an isolated nucleic acid molecule (I) comprising a nucleotide sequence encoding a TREM-4 or TREM-5 polypeptide.

The TREM-4 polypeptide has a 245 alpha or 222 beta amino acid sequence, see ADD94811. The TREM-5 polypeptide comprises a 269 amino acid sequence, see ADD94812. Also described: (I) a vector containing (I) acid sequence, see ADD94812. Also described: (I) a vector containing (I), operably linked to a heterologous promoter; (4) producing a TREM-4 or TREM-5 polypeptide, (5) preparing a cell or its progeny capable of corressing a polypeptide; (6) an isolated TREM-4 or TREM-5 polypeptide; (7) an antibody which immunospecifically recognises the polypeptide or an antipody which immunospecifically recognises the polypeptide or an antipoda which man aberrant level of TREM-4 or TREM-5, (10) detecting the corresponding fragment of the antibody; (8) an agonist or antigonist of the polypeptide; (9) treating a subject having a disease or disorder corrections for use of TREM-4 or TREM-5, polypeptide in a sample; (11) detecting the presence of TREM-4 or TREM-5 polypeptide in a sample; (12) contraception; or the compound which selectively binds to the polypeptide and a cartier; and (14) a kit comprising a container containing the polypeptide and anti-infertility activities. The nucleic acid (I) is useful for treating a subject having a disease or disorder associated with an aberrant level of TREM-4 or TREM-5 e.g. inflammatory disorder, cancer, infertility or heart disease affecting microvascular compartments. The present sequence or the present invention. Human TREM-5, which is used in an example of from the present invention. Human TREM-5 is located on chromosome 17, more specifically to region 17q25.

Sequence 20 BP; 4 A; 7 C; 4 G; 5 T; 0 U; 0 Other;

.. 0 1.7%; Score 13.8; DB 1; Length 20; 18.2%; Pred. No. 4.2e+02; ve 0; Mismatches 2; Indels 680 AGATGGATCTGCACACC 696 Query Match
1.7%;
Best Local Similarity 88.2%;
Matches 15; Conservative

ö

Gaps

m 19 AGATGGATCTGCAGAGC 셤

ADE03522 standard; DNA; 20 29-JAN-2004 (first entry) ADE03522;

BP.

BGS PCR primer #13.

we so, primer; PCR; human; immunoglobulin; ig superfamily; BGS;

aberrant immunoglobulin cell surface receptor activity;

cellular adiasorder; hyper-immunoglobulin receptor activity;

yppo-immunoglobulin receptor activity; aberrant signal transduction;

covarian cancer; sexual dysfunction; infertility;

covarian cancer; sexual dysfunction; infertility;

covarian cancer; sexual dysfunction; infertility;

covarian cancer; sexual dysfunction; infertility;

covarian cancer; sexual dysfunction; infertility;

colic inflammatory disease; endomerriosis; premature menopause;

covarian cycle; dysfunctional uterine bleeding;

constrant androgen metabolism; polycystic ovarian disease;

covary syndrome; hermaptorditism; immune disorder;

inflammatory disorder; archritis; asthma; immunodeficiency;

cons; psoriasis; hypersensitivity; T-cell mediated cytocoxicity;

autoimmunity disorder; autoimmune infertility; Addison's bisease;

constitution dependent diabetes mellitus; autoimmune inflammatory eye disease;

consultin dependent diabetes mellitus; autoimmune inflammatory eye disease; Sjogren's disease; scleroderma ADE03522
XX
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352
AC ADE0352

Homo sapiens.

US2003195163-A1

16-OCT-2003.

11-JUL-2002; 2002US-00193477.

11-JUL-2001; 2001US-0304888P.

WUSS/)

KRYSTEK S R.

LEE L. FEDER J N. CHENG J D. (KRYS/) (LEEL/) (FEDE/) (CHEN/) Cheng JD; Feder JN, 'n, Krystek SR, Lee S,

New isolated nucleic acid molecule encoding BGS-2, 3 and 4 polypeptides, useful for preventing, treating or ameliorating a medical condition, e.g. a disorder related to aberrant immunoglobulin cell surface receptor WPI; 2003-844480/78. activity.

Example 3; SEQ ID NO 107; 242pp; English

The invention relates to an isolated nucleic acid molecule encoding BGS2, 3 and 4 polypeptides. The nucleic acid molecule, polypeptide and
ectivity are preventing, treating or ameliorating a medical
condition, such as a disorder related to aberrant immunoglobulin cell
condition, such as a disorder related to aberrant immunoglobulin cell
condition activity; a cellular adhesion disorder; a disorder
crelated to hyper- or hypo-immunoglobulin receptor activity, a disorder
crelated to aberrant signal transduction; a reproductive disorder; a
related to aberrant signal transduction; ovarian cancer; sexual
dysfunction; infertility; pelvic inflammatory disease; endometriosis;
premature menopause; placental dysfunction; hormone deficiency; oestrogen
deficiency; aberrant androgen metabolism; polycystic ovarian disease;
cyndrome; hermaphroditism, immune disorders; inflammatory disorders;
syndrome; hermaphroditism, immune disorders; inflammatory disorders;
creminated astronal mediated cytoroxicity; immune reactions to transplanted
crems and tissues; or autoimmunity disorders; autoimmune infertility;
Addison's Disease; haemolytic anaemia; rheumatoid arthritis; dermatitis;
glomerulonephritis; Graves' Disease; Multiple Sclerosis; Myasthenia
creminative inflammatory equence is used in the exemplification of the present invention.

Sequence 20 BP; 6 A; 8 C; 3 G; 3 T; 0 U; 0 Other;

ö 1.7%; Score 13.8; DB 1; Length 20; 88.2%; Pred. No. 4.2e+02; tive 0; Mismatches 2; Indels Query Match
Best Local Similarity 88.2
Matches 15; Conservative

ö

Gaps

₽ 셤 RESULT 441

BP ADD90775/c ID ADD90775 standard; DNA; 20

ADD90775;

29-JAN-2004 (first entry)

S. pneumoniae pep27 PCR primer #1.

ss; PCR; primer, antibiotic; antibiotic tolerance; bacterial resistance; beta-lactam; penicillin; vancomycin; pep27. ..

Gaps

Jul

Fri

Atkinson RM,

primer,

18-SEP-2003

```
Claim 18 claims primers for use in detecting mutations in a mammalian gene for a structural protein of cartilage comprising a sequence floatified in Table I (Fage 18-31). Table I includes 179 primer sequences (see AAQ65728-Q65906). The following details are given for primer 70: Alt. Code: DH-62 Region/exon: 42/43 Direction: sense Primer position:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 18 claims primers for use in detecting mutations in a mammalian gene for a structural protein of cartilage comprising a sequence identified in Table I (Page 18-31). Table I includes 179 primer sequences (see AAQ65728-Q65906). The following details are given for primer 67: Alt. Code: DH-59 Region/exon: 40/41 Direction: antisense Primer position: 17638 (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Detecting genetic pre-disposition to osteoarthritis - and other diseases involving mutation in cartilage protein genes, by amplification and analysis of DNA and comparison with standards.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Baldwin
                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Type II procollagen; COL2A1; amplification; primer; polymerase chain reaction; PCR; osteoarthritis; cartilage; ss.
                                                                                                                                                                                                                                   1.7%; Score 13.8; DB 1; Length 21;
88.2%; Pred. No. 4.5e+02;
tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.7%; Score 13.8; DB 1; Length 21; 88.2%; Pred. No. 4.5e+02; ive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ritvaniemi P,
                                                                                                                                                         17618 (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                             Sequence 21 BP; 2 A; 8 C; 4 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 21 BP; 7 A; 4 C; 8 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ala-Kokko L, Williams CJ,
                  Claim 18; Page 28; 112pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Type II procollagen PCR primer 67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 18; Page 28; 112pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      169
                                                                                                                                                                                                                                                                                                                   753 CITAAGGAGATGGCAGA 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYJE-) UNIV JEFFERSON THOMAS
                                                                                                                                                                                                                                                                                                                                                       ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93WO-US010964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92US-00977284.
                                                                                                                                                                                                                                                                                                                                                   CTTCAGGAGAGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAQ65867 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    753 CITAAGGAGAIGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ahmad NN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1994-183530/22.
                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 15; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Prockop DJ,
Hopkinson I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9411532-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAY-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-MAR-2003
22-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAQ65867;
                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 443
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Detecting genetic pre-disposition to osteoarthritis - and other diseases involving mutation in cartilage protein genes, by amplification and analysis of DNA and comparion with erandards
                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a method of determining whether a bacteria is likely to be tolerant to antibiotics. The methods are used for determining bacterial resistance to beta-lactam, penicillin and/or vancomycin. The present sequence represents the S. pneumoniae pep27 PCR
                                                                                                                                                                                                                                                                                                           Determining whether a bacteria is likely to be tolerant to beta-lactam, penicillin or vancomycin by determining the genotype of the vex2 and pep27 genes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \ddot{c}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Baldwin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Type II procollagen; COL2A1; amplification; primer; polymerase chain reaction; PCR; osteoarthritis; cartilage; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 1.7%; Score 13.8; DB 1; Length 20; Best Local Similarity 88.2%; Pred. No. 4.2e+02; Matches 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>п</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ritvaniemi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 3 A; 3 C; 8 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                  (SJUD-) ST JUDE CHILDREN'S RES HOSPITAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C,
                                                                                                                                                                                                                                                                                                                                                                                                    Claim 14; SEQ ID NO 9; 11pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ala-Kokko L, Williams
Ahmad NN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Type II procollagen PCR primer 70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ВЪ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                UYJE-) UNIV JEFFERSON THOMAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92US-00977284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93WO-US010964.
                                                                                                                   02-MAY-2003; 2003US-00428617
                                                                                                                                                            13-NOV-2001; 2001US-00054225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 454 CCTTCCAGGAAGAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17 ccarccagcaagagcrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA065870 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (revised)
(first entry)
                                                                                                                                                                                                                                       Tuomanen EI;
    Streptococcus pneumoniae
                                                                                                                                                                                                                                                                                WPI; 2003-852128/79.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1994-183530/22.
                                        US2003175796-A1
```

ΰ

WO9411532-A1

Synthetic.

25-MAR-2003 22-DEC-1994

AAQ65870;

RESULT 442 AAQ65870/

ઠે

12-NOV-1993; 13-NOV-1992;

26-MAY-1994

Prockop DJ, Hopkinson I,

ö

Gaps

```
Sequences AAV62624 to AAV62662 represent oligonucleotides used in the construction and expression of a humanised monoclonal antibody (MAb) LO-CD2a. The invention relates to the use of the MAD LO-CD2a or a humanised or a chimeric version of the LO-CD2a antibody for the inhibition of a T-Phyridoma cell line ATCF (HB 11423) can bind to an epitope on the CD2 antigen of the human lymphocytes. The T-cell mediated immune response in a patient can be inhibited by administering the MAD LO-CD2a or antibody that binds to the same human lymphocytes. The T-cell mediated immune response in a patient can be inhibited by administering the MAD LO-CD2a or an antibody that binds to the same human lymphocyte epitope as LO-CD2a. The method is used for preventing transplant rejection or for treating graftversus-host disease or for treating autoimmune diseases
                                                                                                                                                                                                                                                                                                                                                                     Inhibition of T-cell mediated immune response with anti-CD2 monoclonal antibody LO-CD2a - used for preventing transplant rejection or for treating graft-versus-host disease or auto-immune diseases.
human lymphocyte, immune response, graft-versus-host disease, T-ce
chimeric, transplant rejection, autoimmune disease, PCR oligo; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 7; Col 39; 96pp; English.
                                                                                                                                                                                                                                                                           (UYLO-) UNIV CATHOLIQUE LOUVAIN.
                                                                                                                                                                                                          93US-00027008.
93US-00119032.
95US-00407009.
                                                                                                                                                                             95US-00472281.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      893/c
AAV22893 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15; Conservative
                                                                                                                                                                                                                                                                                                            Latinne D, Bazin H;
                                                                                                                                                                                                                                                                                                                                             WPI; 1998-556337/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                  Rattus sp.
Homo sapiens
                                                                                                                                                                               07-JUN-1995;
                                                                                                                                                                                                              05-MAR-1993;
                                                                                                                                                                                                                                              29-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-AUG-1998
                                                                                                                 US5817311-A.
                                                                                                                                                06-0CT-1998
                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAV22893;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence represents oligonucleotide QARQA which is specific for polynucleotides encoding DNA polymerases from Kaposi's sarcoma herpes virus (KSAPV). The oligonucleotide may be used for detecting viral DNA or RNA in a sample of primate origin, especially in the diagnosis of herpes viral infection. Herpes virus DNA polymerases of this invention, may be used in vaccines for the protection against infection by a herpes virus of the RFHV/KSHV family. They may also be used in the design and screening of anti-viral drugs. Antibodies raised against the polymerase or fragments of it, may be used in the detection of herpes virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Herpes virus DNA polymerase and corresponding nucleotide sequence - used in the detection and treatment of herpes virus infection.
                                                                                                                                                                                                              Retroperitoneal fibromatosis herpes virus; detection; infection;
Kaposi's sarcoma herpes virus; viral DNA; viral RNA; vaccine; antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       infection and for drug targetting for the therapy of herpes virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2; Indels
                                                                                                                                                                               XSHV DNA polymerase specific oligonucleotide QARQA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 21 BP; 7 A; 4 C; 7 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 13.8; DB 1;
Pred. No. 4.5e+02;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Todaro GJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 26; Page 93; 132pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Strand K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     259 TAGACAGGAGCACCTTC 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21
     CTTCAGGAGAGGGCAGA 17
                                                                                                                                                                                                                                                                                                                                                                             96WO-US011688
                                                                                                                                                                                                                                                                                                                                                                                                            95US-0001148P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 88.2%;
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAGACAGGAGGATTC
                                                                                                                                                 (first entry)
                                                                                    AATS1590 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rose TM, Bosch ML,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1997-132644/12
                                                                                                                                                                                                                                                antibody; ss.
                                                                                                                                                                                                                                                                                                                                                                             12-JUL-1996;
                                                                                                                                                06-NOV-1997
                                                                                                                                                                                                                                                                                                               WO9704105-A1
                                                                                                                                                                                                                                                                                                                                                                                                                             11-JUL-1996;
                                                                                                                                                                                                                                                                                                                                              06-FEB-1997.
                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'n
                                                                                                                   AAT51590;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 449
AAV62660/C
1D AAV6
XX
AC AAV6
XX
DT 21-DI
XX
DE HUMAI
XX
KW MODOC
                                                                      AAT5159
                                                     RESULT
```

```
·.
                                                                                                                                                                                                                                                          LO-CD2a; monoclonal antibody; CD2; rat; humanised antibody; chimeric antibody; antibody engineering; graft rejection; graft versus host disease; autoimmune disease; therapy; FCR; primer; ss.
                                               Gaps
                                                ò
                       1.7%; Score 13.8; DB 1; Length 21; 88.2%; Pred. No. 4.5e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                     Humanised LO-CD2a VH region PCR primer 51' (antisense).
Sequence 21 BP; 5 A; 7 C; 3 G; 6 T; 0 U; 0 Other;
                                                                          242 TCAGCTCTTGAAGGACT 258
                                                                                                                                                              ВР
                                                                                                                                                                                                                                                                                                                           Rattus sp.
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                               WO9807444-A1
                                                                                                                                                                                                                                                                                                               Synthetic.
```

Monoclonal antibody; MAb; LO-CD2a; humanised antibody; CD2 antigen; Humanised antibody LO-CD2a heavy chain synthesising PCR oligo 51'.

BP.

AAV62660 standard; DNA; 21

(first entry)

21-DEC-1998

AAV62660,

```
Humanised antibody - comprises complementarity determining region from LO-CD2a, useful to prevent or inhibit graft versus host or auto-immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PCR primers (see AAV22884-95) were used in the PCR amplification of 12 synthetic oligonucleotides used in the construction of a humanised heavy chain (see AAV22854) comprising human Amu 5-3 framework regions and rat anti-CD2 monoclonal antibody LO-CDR2a complementarity determining regions. Primer 51' was used with sense primer 51 (see AAV22892) to join oligonucleotides 9 and 10, and with primer 4H (see AAV22894) to join oligonucleotides 9+10 to oligonucleotides 1-8. Humanised LO-CD2a can be used to inhibit human T cell activation and proliferation, to prevent or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unhibit graft rejection, graft versus host disease or autoimmune disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Thiazide-sensitive Na-Cl cotransporter; TSC; hTSC gene; human; ion transport; Gitelman's syndrome; Bartter's syndrome; hypokalaemic alkalosis; hypocalciuria; hypomagnesemia; diagnosis;
                                                                                                                                                                                                                                                   Postema CE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 13.8; DB 1; Length 21; Pred. No. 4.5e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Indels
                                                                                                                                                                                                                                                   Kieber-Emmons T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 21 BP; 5 A; 7 C; 3 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human TSC gene exon 4 reverse primer hTSCex4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 7; Page 67; 133pp; English.
                                                                                                                                                                                                                                               Kaplan R,
                                                                                                                                                  (BIOT-) BIOTRANSPLANT INC. (UYLO-) UNIV CATHOLIQUE LOUVAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              °
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ВР
                             96WO-US013281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4,
                                                                                         96WO-US013281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 1.7%;
Best Local Similarity 88.2%;
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             242 TCAGCTCTTGAAGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20 TCAGGTCATGAAGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV40574 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  therapy; SSCP; primer; ss
                                                                                                                                                                                                                                               Latinne D,
rf ME;
                                                                                                                                                                                                                                                                                                                                                WPI; 1998-168898/15
                                 16-AUG-1996;
                                                                                         L6-AUG-1996;
                                                                                                                                                                                                                                               Bazin H, Lat
White-Scharf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9829431-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV40574;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 447
AAV40574/C
XX
AXC
AAV4055/AC
DT 21-DEC.
XX
XX
DT 21-DEC.
XX
Human 1
XX
YX
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hypoka:
XW
Hyp
셤
```

```
.
0
                                                                                 Primers hTSCex4 forward and reverse (see AAV40573 and AAV40574, respectively) are designed to amplify exon 4 of the human hTSC gene (see AAV40561) that codes for thiazide-sensitive Na-Cl cotransporter TSC (see AAW26682). Both primers are located within introns of hTSC. 27 Sets of specific primers (see AAV40565-V40618) were used for SSCP analysis of HTSC. Amplified products were analysed for molecular variants by electrophoresis, and identified variants were sequenced. Complete linkage of Gitelman's syndrome allows for the genetic diagnossis of this disorder. The invention provides products and methods useful for diagnosis and treatment of Gitelman's syndrome and other ion transport
genes - useful for developing products for the diagnosis and treatment of ion transport disorders, e.g. Gitelman's Syndrome or Bartter's Syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Polymorphism; human; inhibitor; cancer; treatment; cell growth; LOH; cell viability; loss of heterozygosity; precancerous condition; ASI; allele specific inhibitor; somatic cell; diagnosis; prevention; atherosclerotic plaque; premalignatic metaplastic lesion; endometriosis; dysplastic lesion; benign tumnur; polycystic kidney disease; transplant; graft versus host disease; malignant cell removal; bone marrow; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Identifying target genes for allele-specific drugs - used for diagnosis, prevention and treatment of, e.g. cancers, atherosclerotic plaque, dysplastic lesions, endometriosis or graft versus host disease.
                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                      ·,
                                                                                                                                                                                                                                                                                                                                                             Query Match 1.7%; Score 13.8; DB 1; Length 21; Best Local Similarity 88.2%; Pred. No. 4.5e+02; Matches 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                            Sequence 21 BP; 3 A; 4 C; 10 G; 4 T; 0 U; 0 Other;
                                                      Example 1; Page 51; 105pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ledley FD, Stanton VP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig 7; 605pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                         531 CAACGCCCTCTTCTCGA 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human polymorphic region 961.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chaggecerecretes 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98WO-US005419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97US-0041057P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ26772 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (VARI-) VARIAGENICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-521232/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W09841648-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-SEP-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Housman D,
                                                                                                                                                                                                                                                                                             disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAZ26772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 448
AAZ26772/c
 # # X & X O O O O O O O O O O X & O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

ô

Gaps

; 0

This invention describes a novel method for identifying an inhibitor potentially useful for treatment of cancer, where the inhibitor is active on a gene vital for cell growth or viability, and where the gene is subject to loss of heterozygosity (LOH) in a cancer. The inhibitor is used for preventing the development of cancer in a patient having a

Thiazide sensitive cotransporter and ATP sensitive potassium channel

Simon DB;

Lifton RP,

(UYYA) UNIV YALE.

31-DEC-1996;

WPI; 1998-388029/33.

97WO-US023553 96US-00778052

```
precancerous condition, by administering to the patient a first allele specific inhibitor (ASI) targeted to an allele of a first essential gene present in cells of the precancerous condition, where the normal somatic cells of the patient are heterozygous for the first gene, the inhibitor is active on at least one but less than all allelic forms of the gene present in a population and targets only one allelic form present in the normal somatic cells, and the first gene. The products and methods can be used in the diagnosis, prevention and treatment of LOH disorders, e.g. cancers, atherosclerotic plaques, premalignant metaplastic or dysplastic cancers, benign tumours, endometritosis, polycyetic kidney disease, and graft versus host disease. The method can also be used to remove malignant cells from bone marrow transplants. AAZ25812-Z26825 represent human polymorphic sites described in the method of the invention
                     $$$$$$$$$$$$$$$$$$$$
```

1.7%; Score 13.8; DB 1; Length 21; 88.2%; Pred. No. 4.5e+02; cive 0; Mismatches 2; Indels Sequence 21 BP; 3 A; 4 C; 4 G; 10 T; 0 U; 0 Other; Local Similarity 88.2 nes 15; Conservative Query Match Matches

678 ACAGATGGATCTGCACA 694 4 20 ACAATGGATCTACACA ਨੇ

AAZ10193 standard; DNA; 21 (first entry) 29-OCT-1999 AAZ10193;

BP.

Antibody LO-CD2a; CD2 antigen; T-lymphocyte; humanised antibody; T-cell-mediated immune response; graft rejection; autoimmune disease; graft-versus-host disease; T cell; natural killer cell; PCR primer; ss. PCR primer used to amplify a humanised heavy chain fragment.

Synthetic.

US5951983-A

14-SEP-1999

95US-00477989 07-JUN-1995;

93US-00119032. 95US-00407009. 93US-00027008 09-SEP-1993; 29-MAR-1995; 05-MAR-1993;

UNIV CATHOLIQUE LOUVAIN. (BIOT-) BIO TRANSPLANT INC (UYLO-)

White-Scharf ME, Postema CE, Kaplan R, Latinne D, Kieber-Emmons T;

Bazin H;

WPI; 1999-526991/44.

Antibody mediated Inhibition of T cell immune response

Example 7; Col 39; 104pp; English.

PCR primers AAZ10192-93 were used to amplify a fragment of a humanised heavy chain of rat monoclonal antibody LO-CD2a which was synthesised with oligonucleotides AAZ10172-83. LO-CD2a binds to an epitope of a CD2 antigen T-lymphocytes. The humanized LO-CD2a antibody comprises the human constant regions, a light chain framework region derived from a human antibody, a heavy chain framework region derived from a human antibody, heavy and light chain complementarity determining regions (CDRs) of the non-human monoclonal antibody produced by the cell line deposited as ATCC HB11423. The humanised antibodies are used in a method for treating a patient to inhibit a T-cell-mediated immune response. The method is

```
ö
useful for the treatment or prevention of graft rejection and graft-vergus-host disease, as well as in the treatment of autoimmune diseases which are mediated by the activation and proliferation of T cells or natural killer cells
                                                                                                                                     Gaps
                                                                                                                                       ..
0
                                                                                                       Length 21;
                                                                                                       1.7%; Score 13.8; DB 1; Length 2
88.2%; Pred. No. 4.5e+02;
tive 0; Mismatches 2; Indels
                                                                            Sequence 21 BP; 5 A; 7 C; 3 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                     242 TCAGCTCTTGAAGGACT 258
                                                                                                                                                                                                20 rcaggrcardaaggacr 4
                                                                                            450
                                                                                                                                                                                                                                             RESULT 45
      8×30000
                                                                                                                                                                       ò
```

(first entry)

BP

AAX15026 standard; DNA; 21

ö

Gaps

; 0

AAX15026;

15-APR-1999

Antisense PCR primer used to amplify PF4 polynucleotides.

Interferon gamma-inducible protein; IP-10; IFN-gamma; MIP-2; monokine induced by gamma-interferon; MIG; interluckin-8; IL-8; IL-10; groth traited neutrophil activating protein-78; EN4-78; growth related oncogene; platelet factor 4; FR4; interferon-gamma; angiogenesis inhibitor; angiotasis inducer; tumour growth inhibition; hamamagiomas; itemarciod arthritis; atheroscalerosis; meningioma; idiopathic pulmonary fibrosis; benign prostatic hypertrophy; psoriasis; vascular restenosis; arteriovenous malformation; neovascular glaucoma; angiofibroma; hammophilic joint; hypertrophic scar; osler-Weber syndrome; pyogenic granuloma retrolental fibroplasia; scleroderma; trachoma; vascular adhesion; synovitis; dermatitis; endometriosis; pterygium; adult respiratory distress syndrome; ARDS; pseudogout; metastasis; cystic fibrosis; CXC chemokine; beta-actin; PCR primer; ss.

Homo sapiens. Synthetic

JS5871723-A.

16-FEB-1999

06-JUN-1995;

95US-00468819. 06-JUN-1995;

(UNMI) UNIV MICHIGAN.

Polverini PJ; Kunkel SL, Strieter RM,

WPI; 1999-166569/14.

Use of chemokines with a conserved Cys Xaa Cys (CXC) sequence - which do not contain amino acid sequence ELR, for inhibiting angiogenesis in tumours, rheumatoid arthritis, restenosis or glaucoma.

Disclosure; Col 53-54; 145pp; English.

PCR primers AAXIS019-48 were used to amplify nucleic acid sequences encoding CXC chemokines of the invention. These include interferon gammaninducible protein (IP-10), monokine induced by gamma-interferon (MIG), interluekin-8 (IL-8) and IL-10, epithelial neutrophil activating protein-78 (BMA-78), growth related oncogenes alpha, beta amd gamma, platelet factor 4 (PP4), interferon-gamma (IFN-gamma), beta-actin and MIP-2. The specification describes methods for inhibiting anglogenesis or for inducing anglostasis, using chemokines (with a conserved Cys Xaa Cys (CXC) sequence at the N-terminal) other than platelet factor-4, and which

```
do not contain the amino acid sequence ELR. The methods are useful for inhibiting tumour growth and metastasis and for treating diseases such haemangiomas, rheumatoid arthritis, atherosclerosis and idiopathic pulmonary fibrosis (IPP), benign prostatic hypertrophy (BPH), vascular restemosis, arteriovenous malformations (AVM), meningioma, neovascular glaucoma, psoriasis, anglofibroma, heamophilic joints, hypertrophic scars, Osler-Weber syndrome, pyogenic granuloma retrolental fibroplasia, scleroderma, trachoma, vascular adhesions, synovitis, dermatitis, endometriosis, pterygium, diabetic retinopathy neovascularisation associated with corneal injury or grafts, adult respiratory distress syndrome (ARDS), chronic bronchitis, pseudogout and cystic fibrosis
                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 21 BP; 4 A; 6 C; 8 G; 3 T; 0 U; 0 Other;
      88666666666888888
```

1.7%; Score 13.8; DB 1; Length 21; ilarity 88.2%; Pred. No. 4.5e+02; Conservative 0; Mismatches 2; Indels 936 920 CAGCGGGACTTTCAGGT Local Similarity les 15; Conserv Query Match Matches

. 0

Gaps

·;

17 1 CAGCGGGGCTTGCAGGT 8 d

Probe used to isolate PF4 nucleic acid sequences. AAX15008 standard; DNA; 21 (first entry) 15-APR-1999 AAX15008; RESULT 451

BP.

Interferon gamma-inducible protein, IP-10; IFN-gamma; MIP-2; monokine induced by gamma-interferon; MIG; interluckin-8; IL-8; IL-10; epithelial neutrophil activating protein-78; EM-78; growth related oncogene; platelet factor 4; FF4; interferon-gamma; angiogenesis inhibitor; angiostasis inducer; tumour growth inhibition; haemangiomas; rheumaroid arthritis; atheroscalerosis; meningioma; idopathic pulmonary fibrosis; benign prostatic hypertrophy; psoriasis; vascular restenosis; arteriovenous malformation; neovascular glaucoma; angiofibroma; haemophilic joint; hypertrophic scar; Osler-Weber syndrome; pyogenic granuloma retrolental fibroplasisis; calcroderma; trachoma; vascular adhesion; synovitis; dermatitis; endometriosis; pterggium; diabetic retinopathy; neovascularisation; chronic bronchitis; adult respiratory distress syndrome; ARDS; pseudogout; metastasis; cystic fibrosis; CXC chemokine; probe; ss.

Homo sapiens Synthetic

US5871723-A.

16-FEB-1999

95US-00468819. 06-JUN-1995;

95US-00468819. 06-JUN-1995;

(UNMI) UNIV MICHIGAN,

Polverini PJ; Kunkel SL, Strieter RM,

WPI; 1999-166569/14.

Use of chemokines with a conserved Cys Xaa Cys (CXC) sequence - which do not contain amino acid sequence ELR, for inhibiting angiogenesis in tumours, rheumatoid arthritis, restenosis or glaucoma.

Disclosure; Col 54; 145pp; English.

AAZ65654 to AAZ69578 represent human biallelic markers from the present invention, which contain a polymorphic base at position 24 of their nucleotide sequences. AAZ69579 to AAZ77440 represent amplification primers for the biallelic markers. The biallelic markers of the invention have a variety of uses: they can be used for high density mapping of the

Novel biallelic markers used to construct a high density disequilibrium

Claim 8; Page 1975; 2745pp; English.

map of the human genome

Oligonucleotides AAX15005-17 represent probes used to isolate nucleic acid sequences encoding CXC chemokines of the invention. These include

```
interferon gamma-inducible protein (IP-10), monokine induced by gamma-interferon (MIG), interluekin-8 (IL-8) and IL-10, epithelial neutrophil activating protein-78, growth related oncogenes alpha, beta and gamma, platelet factor 4 (PF4), interferon-gamma (IFN- gamma), and MIP-2. The specification describes methods for inhibiting angiogenesis or for inducing angiostasis, using chemokines (with a conserved Cys Xae Cys (CXC) sequence at the N-terminal) other than platelet factor-4, and which do not contain the amino acid sequence ELR. The methods are useful for inhibiting tumour growth and metastasis and for treating diseases such as hemangiomas, rheumatoid arthritis, atherosclerosis and idiopathic pulmonary fibrosis (IPF), benign prostatic hypertrophy (BPH), vascular glaucoma, psoriasis, anglofibroma, haemophilic joints, hypertrophic scars, Osler-Weber syndrome, progenic granuloma retrolental fibroplasia, scleroderma, trackhoma, vascular adhesions, synovitis, dermettis, endometriosis, pterygium, diabetic retinopathy neovascularisation associated with corneal injury or grafts, adult respiratory distress syndrome (ARDS), chronic bronchitis, pseudogout and cystic fibrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human biallelic marker downstream amplification primer SEQ ID NO:8184.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human genome; biallelic marker; high density disequilibrium map; genomic map; haplotype; phenotype; polymorphic base; genotyping; haplotyping; hybridisation; identification; characterisation; amplification; single nucleotide polymorphism; SNP; PCR primer; diagnosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.7%; Score 13.8; DB 1; Length 21; ilarity 88.2%; Pred. No. 4.5e+02; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 21 BP; 4 A; 6 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chumakov I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-IB000822.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0082614P.
98US-0109732P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               920 CAGCGGGACTITCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CAGCGGGCTTGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ73828 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Blumenfeld M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-013267/01.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9954500-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-OCT-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ73828;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cohen D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAZ73828/
          88888888888888888888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HID SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNTY SECOND COUNT
```

```
human genome, and in complex association studies and haplotyping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agents and diagnostic methods, as well as the characterisation of the differential efficacious responses to and side effects from the pharmaceutical agents acting on a disease as well as other treatment. N.B. The SEQ ID NOS 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and present invention
```

Sequence 21 BP; 11 A; 7 C; 2 G; 1 T; 0 U; 0 Other;

```
/ Match 1.7%; Score 13.8; DB 1; Length 21; Local Similarity 88.2%; Pred. No. 4.5e+02; nes 15; Conservative 0; Mismatches 2; Indels
                                                                              194 GGTCAGTTTCCTGGGTT 210
                                                                                                                   GGTCAGTTTCGTGGTTT 2
                                                                                                                     18
      Query Match
                                                                                Š
                                                                                                                 g
```

RESULT 453

```
AAZ73555 standard; DNA; 21
                                                                              10-SEP-2001 (first entry)
                                         AAZ73555;
```

뀶.

Human biallelic marker downstream amplification primer SEQ ID NO:7911

Human genome; biallelic marker; high density disequilibrium map; genomic map; haplotype; phenotype; polymorphic base; genotyping; haplotyping; hybridisation; identification; characterisation; amplification; single nucleotide polymorphism; SNP; PCR primer; diagnosis; ss

Homo sapiens.

WO9954500-A2 28-OCT-1999,

99WO-IB000822 98US-0082614P. 98US-0109732P. 21-APR-1999; 21-APR-1998; 23-NOV-1998;

(GEST) GENSET

Chumakov I; Cohen D, Blumenfeld M,

WPI; 2000-013267/01

Novel biallelic markers used to construct a high density disequilibrium map of the human genome.

Claim 8; Page 1917; 2745pp; English.

AAZ65654 to AAZ69578 represent human biallelic markers from the present invention, which contain a polymorphic base at position 24 of their nucleotide sequences. AAZ6579 to AAZ77440 represent amplification primers for the biallelic markers. The biallelic markers of the invention have a variety of uses: they can be used for high density mapping of the human genome, and in complex association studies and haplotyping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agents and diagnostic methods, as well as the characterisation of the difficacious responses to and side effects from pharmaceutical agents acting on a disease as well as other treatment.

N.B. The SEQ ID NOS 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and

```
.
0
3367, are not actually given a sequence in the Sequence Listing from the present invention
                                                                                                                     Gaps
                                                                                                                     ..
0
                                                                                    Length 21;
                                                                                                                    2, Indels
                                                     Sequence 21 BP; 4 A; 4 C; 5 G; 8 T; 0 U; 0 Other;
                                                                                  11.7%; Score 13.8; DB 1;
88.2%; Pred. No. 4.5e+02;
ve 0; Mismatches 2;
                                                                                                                                                    488
                                                                                                                                                                                  17
                                                                                                    Local Similarity 88.2%;
les 15; Conservative
                                                                                                                                                                                   1 AGGAACTIGGCTTTCAT
                                                                                                                                                    472 AGGAACTTGGCATTCCT
                                                                                         Query Match
                                                                                                                         Matches
                                                                                                                                                     ò
                                                                                                                                                                                  원
```

Human gene single nucleotide polymorphism #572. BP. AAF95811 standard; DNA; 21 06-JUN-2001 (first entry) AAF95811; AAF95811/c

RESULT 454

ö

Gaps

. 0

Human; variant thrombospondin 1; variant thrombospondin 4; SNP; polymorphism; vascular disease; coronary artery disease; forensics; myocardial infarction; atherosclerosis; stroke; venous thromboembolism; pulmonary embolism; paternity test; ds. /standard_name= "single nucleotide polymorphism" Location/Qualifiers replace(11,G) /*tag= Homo sapiens Key Variation

WO200118250-A2 15-MAR-2001

10-SEP-1999; 99US-0153357P. 26-JUL-2000; 2000US-0220947P. 16-AUG-2000; 2000US-0225724P. 07-SEP-2000; 2000WO-US024503.

Daley GQ, Lander ES, Gargill M, Ireland JS, Bolk S, WPI; 2001-226749/23

(WHED) WHITEHEAD INST BIOMEDICAL RES. (MILL-) MILLENNIUM PHARM INC.

Mccarthy JJ;

Nucleic acids comprising single nucleotide polymorphisms, useful in applications such as forensics, paternity testing, medicine, genetic analysis and phenotype correlations to diseases such as diabetes and atherosclerosis.

Example; Page 88; 242pp; English.

The present invention provides a method of diagnosing a vascular disease in an individual, involving determining the sequence at various belongmost an object of the buran thrombospondin 1 and thrombospondin 4 genes. The sequences at a number of polymorphic sites are also provided in the specification. In particular, the method can be used in the diagnosis of atherosclerosis, myocardial infarction, coronary heart disease, stroke, peripheral vascular diseases, venous thromboembolism and pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also correlations to diseases. The present sequence is an example of one of the human gene SNPS shown in the specification

Sequence 21 BP; 5 A; 6 C; 6 G; 4 T; 0 U; 0 Other;

schu568-1.rng

ö

```
The present invention provides a method of diagnosing a vascular disease in an individual, involving determining the sequence at various polymorphic sites within the human thrombospondin 1 and thrombospondin 4 genes. The sequences at a number of polymorphic sites are also provided in the specification. In particular, the method can be used in the diagnosis of atherosolerosis, myocardial infarction, coronary heart disease, stroke, peripheral vascular diseases, venous thromboembolism and pulmonary embolism. Single nucleotide polymorphisms (SMPs) are also useful in forensics, paternity testing, genetic analysis and phenotype correlations to diseases. The present sequence is an example of one of
                                                                                                                                                                                                                                                                                                                            Human; variant thrombospondin 1; variant thrombospondin 4; SNP; polymorphism; vascular disease; coronary artery disease; forenaics; myocardial infarction; atherosclerosis; stroke; venous thromboembolism; pulmonary embolism; paternity test; ds.
                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acids comprising single nucleotide polymorphisms, useful in applications such as forenaics, paternity testing, medicine, genetic analysis and phenotype correlations to diseases such as diabetes and atherosclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /standard_name= "single nucleotide polymorphism"
                                    ;
0
 Length 21;
                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Daley GQ,
1.7%; Score 13.8; DB 1;
88.2%; Pred. No. 4.5e+02;
cive 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 21 BP; 6 A; 5 C; 8 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                              Human gene single nucleotide polymorphism #1345.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the human gene SNPS shown in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ireland JS, Bolk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (WHED ) WHITEHEAD INST BIOMEDICAL RES.
(MILL-) MILLENNIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example; Page 141; 242pp; English.
                                                                      854 CCCCACTGGTGATGAGC 870
                                                                                                                                                                                         BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      replace (11, T)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0153357P.
2000US-0220947P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-SEP-2000; 2000WO-US024503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-AUG-2000; 2000US-0225724P
                                                                                            20 CCCCATTGGTGAAGAGC
                                                                                                                                                                                         AAF96584 standard; DNA; 21
                                                                                                                                                                                                                                                              (first entry)
                  Best Local Similarity 88.2
Matches 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lander ES, Gargill M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-226749/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       40200118250-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-SEP-1999;
26-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                            06-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Variation
                                                                                                                                                                                                                           AAF96584;
 Query Match
                                                                                                                                                                                       ò
```

```
The present invention provides a method of diagnosing a vascular disease in an individual, involving determining the sequence at various polymorphic sites within the human thrombospondin 1 and thrombospondin 4 genes. The sequences, a number of polymorphic sites are also provided in the specification. In particular, the method can be used in the diagnosis of atherosolerosis, myocardial infarction, coronary heart disease, stroke, peripheral vascular diseases, venous thromboembolism and unmorary embolism. Single nucleotide polymorphisms (SNPs) are also useful in forensics, paternity testing, genetic analysis and phenotype correlations to diseases. The present sequence is an example of one of
                                                                                                                                                                                                                                                   Human, variant thrombospondin 1, variant thrombospondin 4; SNP; polymorphism; vascular disease; coronary artery disease; forensics; myocardial infarction; atherosclerosis; stroke; venous thromboembolism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mccarthy JJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleic acids comprising single nucleotide polymorphisms, useful in applications such as forensics, paternity testing, medicine, genetic analysis and phenotype correlations to diseases such as diabetes and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                         /standard_name= "single nucleotide polymorphism"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.7%; Score 13.8; DB 1; Length 2
88.2%; Pred. No. 4.5e+02;
tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Daley GQ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 21 BP; 5 A; 6 C; 7 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                      Juman gene single nucleotide polymorphism #728.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the human gene SNPS shown in the specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                M, Ireland JS, Bolk
                                                                                                                                                                                                                                                                                                       pulmonary embolism; paternity test; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WHITEHEAD INST BIOMEDICAL RES. MILLENNIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example; Page 98; 242pp; English.
 763 TGGCAGAACTGGAGAAG 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           551 TGTAGCCCAACAGCAGG 567
                                3 reacadeacrecadade 19
                                                                                                                    AAF95967 standard; DNA; 21 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 TATGGCCCAACAGCAGG 17
                                                                                                                                                                                                                                                                                                                                                                                           replace (11,G)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0153357P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-JUL-2000; 2000US-0220947P.
16-AUG-2000; 2000US-0225724P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-SEP-2000; 2000WO-US024503
                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gargill
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-226749/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     atherosclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200118250-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-SEP-1999;
                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                      06-JJN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lander ES,
                                                                                                                                                                                                                                                                                                                                                                                           Variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (WHED )
                          g
                                                                                                                    8
```

. 0

ö

Gaps

. 0

1.7%; Score 13.8; DB 1; Length 21; llarity 88.2%; Pred. No. 4.5e+02; Conservative 0; Mismatches 2; Indels

Local Similarity es 15; Conserv

Query Match Best Loc Matches Cinnamoyl co-reductase; tissue-specific plant promoter; plant; lignin biosynthesis; fodder crop; cell wall rigidity; pathogen resistance; 3'RACE; PCE; primer; ss; rapid amplification of cDNA ends.

Cinnamoyl co-reductase (CCR) 3'RACE primer.

(first entry)

24-SEP-2002

ABK86198;

BP.

21

ABK86198 standard; DNA;

```
The present invention provides a method of diagnosing a vascular disease in an individual, involving determining the sequence at various bolymorphic sites within the human thrombospondin 1 and thrombospondin 4 genes. The sequences at a number of polymorphic sites are also provided in the specification. In particular, the method can be used in the diagnosis of atheroselsenosis, myocardial infarction, coronary heart disease, stroke, peripheral vascular diseases, venous thromboembolism and pulmonary embolism. Single nucleotide polymorphisms (SNPs) are also correlations to diseases. The present sequence is an example of one of the human gene SNPs shown in the specification
                                                                                                                                                                    Human; variant thrombospondin 1; variant thrombospondin 4; SNP; polymorphism; vascular disease; coronary artery disease; forensics; myocardial infarction; atherosclerosis; stroke; venous thromboembolism; pulmonary embolism; paternity test; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Daley GQ, Mccarthy JJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acids comprising single nucleotide polymorphisms, useful in applications such as forensics, paternity testing, medicine, genetic analysis and phenotype correlations to diseases such as diabetes and
                                                                                                                                                                                                                                                                                                                                    /*tag= a
/standard_name= "single_nucleotide_polymorphism"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
1.7%; Score 13.8; DB 1; Length 21;
Best Local Similarity 88.2%; Pred. No. 4.5e+02;
Matches 15; Conservative 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 21 BP; 2 A; 9 C; 5 G; 5 T; 0 U; 0 Other;
                                                                                                                                      Human gene single nucleotide polymorphism #709.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bolk S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (WHED ) WHITEHEAD INST BIOMEDICAL RES. (MILL-) MILLENNIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ireland JS,
                                                                                                                                                                                                                                                                                               Location/Qualifiers
replace(11,T)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example; Page 96; 242pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-SEP-1999; 99US-0153357P.
26-JUL-2000; 2000US-0220947P.
16-AUG-2000; 2000US-025724P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-SEP-2000; 2000WO-US024503
                                   AAF95948 standard; DNA; 21
                                                                                                     06-JUN-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gargill M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-226749/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        atherosclerosis
                                                                                                                                                                                                                                                                                                                                                                                      WO200118250-A2
                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                       15-MAR-2001.
                                                                                                                                                                                                                                                                                                 Key
Variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lander ES,
                                                                    AAF95948;
RESULT 457
                  AAF95948/
```

(DAJO-) DANMARKS JORDBRUGSFORSKNING

WPI; 2002-508808/54

Larsen K;

19-DEC-2000; 2000DK-00001906. 02-FEB-2001; 2001DK-00000178. 19-DEC-2001; 2001WO-DK000841

VO200250294-A1.

Synthetic.

27-JUN-2002.

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a regulatory polynucleotide, which is capable of promoting the expression of a coding polynucleotide sequence linked to its 3' end. This new tissue-specific plant promoter comprises a DNA sequence from Lolium perenne or the nucleotide sequence contained in plasmid plPCCR (DSMZ 14003). The regulatory polynucleotide is useful for manipulating liapin biosynthesis or regulating plants, particularly in tissues such as the stem. This is especially useful for improving digestability of fodder crops, for improving rigidity and permeability of calls walls, or improving resistance to pathogens by improving the lightin content in of plant cell walls. The present sequence represents a 3' RACE (rapid amplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                          New tissue specific plant promoter, specifically for Lolium perenne cinnamoy! COA:NADP oxidoreductase, useful for manipulating lighin biosynthesis in plants or regulating gene expression in lighin-producing tissues of plants.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, single nucleotide polymorphism, SNP; sickle cell anaemia, agammaglobulinaemia, diabetes insipidus, Lesch-Nyhan syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.7%; Score 13.8; DB 1; Length 21; 88.2%; Pred. No. 4.5e+02; tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 21 BP; 5 A; 5 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cDNA ends) used to clone cinnamoyl co-reductase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human single nucleotide polymorphism #391.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 1; Page 41; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  466 AGCTCCAGGAACTTGGC 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3711/c
ABK65771 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5 AGCTGCAGGATCTTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABK65771;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABK65771/
ID ABK6
XX
AC ABK6
XX
DT 02-J
XX
CX
XX
CX
KW Hume
KW Hume
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ਨੇ
```

ò

Gaps

. 0

184 ACAGTGGCCGGGTCAGT 200

18 ACAGAGGCCGGGTCACT

RESULT 458 ABK86198

N

schu568-1.rng

```
The invention relates to a nucleic acid comprising single nucleotide polymorphisms (SNPs) associated with diseases. The nucleic acids comprising the SNPs and probes and primers for detecting them may be used in assays for the diagnosis of diseases associated with SNPs (such as sickle cell anaemia, agammaglobulinaemia, diabetes insipidus. Lesch-Nyhan syndrome, muscular dystrophy, Miskott-Aldrich syndrome, Fabry's disease, familial hypercholesterolaemia, polycystic kidney disease, hereditary capherocytosis, von Willebrand's disease, tuberous sclerosis, hereditary haemorrhagic telangiectasia, familial acute intermittent porphyra, syndrome, osteogenesis imperfecta, and acute intermittent porphyra, syndrome of successivity to, multifactorial diseases of which a component is or may be genetic, such as autcimmune diseases, including rheumatoid arthritis, multiple sclerosis, diabetes (insulin-dependent and nonindependent), systemic lupus erythematosus and Graves disease, cancers including cancers of the bladder, brain, breast, colon, oseophagus, kidney, leukaemia, liver, lung, oral cavity, ovary, pancreas, prostate, skin, stomach and uterus, longevity, appearance (e.g., baldness, no besity), strength, speed, endurance, fertility, and susceptibility or and in paternity testing. Akk6381-AkK65841 represent human single
muscular dystrophy, Wiskott-Aldrich syndrome, Fabry's disease, familial hypercholesterolaemia, polycystic kidney disease, cancer; hereditary spherocycosis, Von Willebrand's disease, tuberous sclerosis, hereditary baemorrhagic telangiectasia, familial colonic polyposis; Ehlers-Danlos syndrome, osteogenesis imperfecta; autoimmune disease, acute intermittent porphyria; inflammation, nervous system disorder; infection, rheumatoid arthritis, multiple sclerosis, diabetes; systemic lupus erythematosus, Graves disease; longevity, obesity; baldness; fertility; forensic; paternity testing; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleic acid comprising single nucleotide polymorphisms, useful in forensics, paternity testing and diagnosis of disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 21 BP; 2 A; 10 C; 5 G; 3 T; 0 U; 1 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleotide polymorphisms of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lander ES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 85; 96pp; English.
                                                                                                                                                                                                                                                                                                                                                                         18-JAN-2001; 2001US-00765081
                                                                                                                                                                                                                                                                                                                                                                                                                    19-JAN-2000; 2000US-0176861P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cargill M, Ireland JS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                             (CARG/) CARGILL M.
(IREL/) IRELAND J S.
(LAND/) LANDER E S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-315108/35
                                                                                                                                                                                                                                                                                 US2002037508-A1
                                                                                                                                                                                                                                                                                                                            28-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nucleic
```

```
Gaps
                                  .
0
1.7%; Score 13.8; DB 1; Length 21; 78.9%; Pred. No. 4.5e+02; Live 1; Mismatches 3; Indels
                                                              222 CCAGAAGTGACGGCCGTGG 240
                                                                                          m
                                                                                21 CCAGCAGTGAYGGCTGGGG
                                15; Conservative
 Query Match
Best Local Similarity
                  Best Loca
Matches
```

ABT16173 standard; DNA; 21

RESULT 460 ABT16173

셤

ABT16173;

SX B

ö

The invention relates to an isolated polypeptide comprising any of the 36 86-1370 residue amino acid sequences, given in the specification, a

Example C; Page 366; 461pp; English.

various dyslipidemias.

or

```
Antidiabetic, anorectic, virucide, antibacterial, fungicide, nootropic, protozoacide, neuroprotective, antiparkinsonian, antilipaemic; NOVX-associated disorder, metabolic disorder, diabetes; anorexis, obesity, infectious disease, cancer-associated cachaxia, immune disorder, neurodegenerative disorder; Alzheimer's disease, Parkinson's disease, neurogenesis, call differentiation, cell proliferation, haematopoiesis, wound healing, anglogenesis, gene therapy; chromosome mapping, tissue typing, preventive medicine; pharmacogenomic, NOVX; PCR; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anderson DW, Zerhusen BD, Li L, Zhong M, Casman SJ, Gerlach VL; Shimkets RA, Gorman L, Pena CEA, Kekuda R, Patturajan M, Spytek KA; Leite WW, Rastelli L, Macdougall JR, Taupier RJ, Guo X, Miller CE; Shenoy SG, Hjalt T, Voss Ez, Boldog FL, Malyankar UM, Padigaru M, Ji W, Smithson G, Edinger SR, Millet I, Ellerman K)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated NOVX polypeptides and polymucleotides, useful for preventing, diagnosing or treating NOVX-associated disorders, e.g. obesity, cancer, Parkinson's disease, infections, immune disorders,
                                     NOVX related reverse PCR primer SEQ ID No 230.
                                                                                                                                                                                                                                                                                                            2001US-0295607P.
2001US-0296404P.
2001US-0296414P.
2001US-0297414P.
2001US-0297414P.
2001US-029757P.
2001US-029757P.
2001US-029856P.
2001US-029858P.
2001US-029858P.
2001US-029858P.
2001US-029856P.
2001US-029858P.
2001US-029858P.
2001US-029858P.
2001US-029856P.
2001US-029856P.
2001US-029856P.
2001US-039856P.
2001US-030858F.
2001US-030858F.
2001US-030858F.
2001US-030858F.
2001US-030868.
2001US-030868.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2002US-00161493.
                                                                                                                                                                                                                                                                                       04-JUN-2002; 2002WO-US017559
            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-140607/13.
                                                                                                                                                                                                                                   WO200299062-A2.
                                                                                                                                                                                                                                                                                                                                                               11-UN-2001;
12-UN-2001;
12-UN-2001;
14-UN-2001;
15-UN-2001;
15-UN-2001;
18-UN-2001;
19-UN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-JUN-2001;
03-JUL-2001;
12-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-SEP-2001;
24-OCT-2001;
16-NOV-2001;
14-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-JUN-2001;
22-JUN-2001;
28-JUN-2001;
            28-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-FEB-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-MAR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-FEB-2002;
                                                                                                                                                                                                                                                             12-DEC-2002
```

cc mature form of them, or a sequence that is at least 95 % identical to, or having one or more conservative amino acid substitutions in one of the 36 amino acid sequences. The polypeptides, nucleic acid molecules and antibodies of the invention are useful in the manufacture of a medicament for treating a syndrome associated with a human disease, preferably a CC MOWA-associated disorder. The nucleic acid molecules, polypeptides and antibodies are useful for treating, preventing or diagnoshing diseases cuch as metabolic disorders, diabetes, obesity, infectious diseases cuch as metabolic disorders, diabetes, obesity, infectious diseases coviral, bacterial, fungal, helminthic, and protozoal), anorexia, cancer associated cachexia, meunod egenerative disorders, Alzheimer's disease, parkinson's disease, immune disorders, haematopoietic disorders, cancer and various dyslipidaemias, or metabolic disturbances associated with obesity, metabolic x syndrome, and wasting disorders. The nucleic acids and polypeptides may also be used as targets for the identification of small molecules that modulate or inhibit e.g. neurogenesis, cell confidencially to NoVX substances for use in therapeutic or immunospecifically to NoVX substances for use in therapeutic or immunospecifically to NoVX substances for use in therapeutic or probes, in chromosome mapping, tissue typing, preventive medicine, and pharmacogenomics. This polyfuclectide represents a NoVX related reverse continuer of the invention \$

Sequence 21 BP; 3 A; 5 C; 4 G; 9 T; 0 U; 0 Other;

Gaps . 0 Query Match 1.7%; Score 13.8; DB 1; Length 21; Best Local Similarity 88.2%; Pred. No. 4.5e+02; Matches 15; Conservative 0; Mismatches 2; Indels 472 AGGAACTIGGCATICCI 488 AGGTCCTTGGCATTCCT

ö

ACA06028 standard; DNA; 21 ACA06028; 30-MAY-2003 (first entry)

Human CXC type chemokine PF4 RT-PCR primer #2.

CXC chemokine; angiogenesis; tumour; platelet factor 4 (PF4); ELR CXC chemokine; IP-10; benign tumour; haemangioma; BPH; angiofibroma; rheumatoid arthritis; atherosclerosis; idiopathic pulmonary fibrosis; benign prostatic hyperplasia; vascular restenosis; meningioma; arteriovencus malformation; neovascular glaucoma; psorialisis; haemophilic joint; hypertrophic scar; oslerweber syndrome; pyogenic granuloma retrolental fibroplasia; scleroderma; trachoma; vascular adhesion; synovitis; dermatitis; endometriosis; wound healing; sore healing; vascular graft; transplant; skin ulcer; gastric ulcer; ss; duodenal ulcer; human; PCR; primer; RT-PCR; reverse transcriptase PCR.

Homo sapiens

US6491906-B1.

10-DEC-2002.

98US-00213383. 09-DEC-1998; 95US-00468819. 06-JUN-1995;

(UNMI) UNIV MICHIGAN.

Strieter RM, Polverini PJ,

Inhibition of angiogenesis in human having tumor, by administering to human, composition comprising recombinant adenovirus having nucleic acid WPI; 2003-327304/31.

Kunkel SL;

the invention relates to an angiogenesis inhibited by administering to a human having a tumour, a composition comprising a recombinant adenovirus that encodes an one that comprises and expresses a nucleic acid segment that encodes anon-size. CCC (Glu-Leu-Arg, Cys-Xaa-Cys) chemokine other than platelet factor 4 (PF4). The non-BLR CXC chemokine lacks the amino acid sequence BLR e.g. 1P-10 or a CXC chemokine protein where the ELR sequence BLR e.g. than 1Y or DLQ. The method is for inhibiting angiogenesis. It is also useful for treating benign tumours, haemangiomas, rheumatoid arthritis, atherosclerosis, idiopathic pulmonary fibrosis, PRF, (Benign prostatic hypertrophy or hyperplasis), vascular restenosis, arteriovenous malformations, meningioma, neovascular glaucoma, psoriasis, angiofibroma, haemangioma retrolental fibrophis scars, osleweber syndrome, pyogenic chaemophilic joints, hypertrophic scars, osleweber syndrome, pyogenic adhesions, synovitis, dermatitis, or endometriosis. It is also useful in adhesions, synovitis, dermatitis, or endometriosis. It is also useful in the sorial and error angiogenic or angiostatic chemokines to be identified or designed without laborious experimentation and avoiding the expense of trial and error screening. It inhibits or reduces angiogenesis in the animal or in a defined biological site within the animal. The present sequence is a conservation of the process transcriptus experiment used to detect CXC chemokine segment that encodes chemokine other than platelet factor. Disclosure; Col 53; 148pp; English \mathbb{R}^{3}

Sequence 21 BP; 4 A; 6 C; 8 G; 3 T; 0 U; 0 Other;

expression in tissue samples

. 0 Match 1.7%; Score 13.8; DB 1; Length 21; Local Similarity 88.2%; Pred. No. 4.5e+02; es 15; Conservative 0; Mismatches 2; Indels Matches

ACA06010 standard; DNA; 21 RESULT 462 ACA060:

30-MAY-2003 (first entry) ACA06010;

Human CXC type chemokine PF4 probe.

CXC chemokine; angiogenesis; tumour; platelet factor 4 (PF4); BIR ACC chemokine; IP-10; benign tumour; haemangioma; BH; angiofibroma; rheumatoid arthritis; atherosclerosis; idiopathic pulmonary fibrosis; benign prostatic hyperplasia; vascular restenosis; meningioma; arteriovenous malformation; neovascular restenosis; meningioma; haemophilic joint; hypertrophic scar; oslerveber syndrome; pyogenic granuloma retrolental fibroplasia; scleroderma; trachoma; pyogenic granuloma retrolental fibroplasia; scleroderma; trachoma; vascular adhesion; synovitis; dermatitis; endometriosis; wound healing; sore healing; vascular graft; transplant; skin ulcer; gastric ulcer; duodenal ulcer; ss; human; probe.

Homo sapiens.

US6491906-B1. 10-DEC-2002.

98US-00213383. 09-DEC-1998; 95US-00468819. 06-JUN-1995;

(UNMI) UNIV MICHIGAN.

Strieter RM, Polverini PJ,

```
the invention relates to an angiogenesis inhibited by administering to a human having a tumour, a composition comprising a recombinant adenovirus that encodes a non-spresses a nucleic acid segment that encodes a non-birack (Glu-Leu-Arg, Cys-Kaa-Cys) chemokine other than platelet factor (PF4). The non-ELR CXC chemokine lacks the amino acid sequence Elx e.g. IP-10 or a CXC chemokine protein where the ELR sequence has been replaced with TVR or DLQ. The method is for inhibiting angiogenesis. It is also useful for treating benign tumours, haemangiomas, rheumatoid arthritis, atherosclerosis, idiopathic pulmonary fibrosis, BPH, (benign prostatic hypertrophy or hyperplasia), vascular restenosis, arteriovenous malformations, meningioma, neovascular glaucoma, psoriasis, angiofibroma, haemophilic joints, hypertrophic scars, oslerweber syndrome, pyogenic granuloma retrolental fibroplasia, scleroderma, trachoma, vascular adhesiong, synovitis, dermatitis, or endometriogis. It is also useful in wound or sore healing, treatment of vascular grafts or transplants, and treatment of skin, gastric, or duodenal ulcers. The invention allows angiogenic or angiostatic chemokines to be identified or designed without screening. It inhibits or reduces angiogenesis in the animal or in a control of the present sequence is a submander of the control of the present sequence is a process.
                                                      Inhibition of angiogenesis in human having tumor, by administering to human, composition comprising recombinant adenovirus having nucleic acid segment that encodes chemokine other than platelet factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               defined biological site within the animal. The present sequence probe used to detect CXC chemokine expression in tissue samples
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 21 BP; 4 A; 6 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                 Disclosure; Col 52; 148pp; English
WPI; 2003-327304/31
```

1.7%; Score 13.8; DB 1; Length 21; 88.2%; Pred. No. 4.5e+02; 2; Indels 0; Mismatches 936 17 88.2%; 920 CAGCGGGACTTTCAGGT 1 CAGCGGGCTTGCAGGT Best Local Similarity 88.2 Matches 15, Conservative Query Match ð

ö

Gaps

ô

AAD58185 standard; DNA; 21 20-NOV-2003 AAD58185; AAD58185, XX X X X B X

BP.

(first entry)

Cytokine amplifying RT-PCR primer, IL-2R.

Virus suppressing factor protein, VSF; immune cell; proteinase K; immunoprecipitation; immunoneutralisation; viral infection; virucide; RT-PCR; primer; ss.

Unidentified.

WO2003064461-A1

30-JAN-2003; 2003WO-KR000231.

01-FEB-2002; 2002KR-00005969

(IMMU-) IMMUNEMED INC.

Byun Y; Cho M, Sin S, Woo S, Ahn J, Kim Y, Choi Y, Kim Y, Kang J;

WPI; 2003-618354/58.

New virus suppressing factor protein having antiviral activity produced

The invention relates to a virus suppressing factor (VSF) protein increasingly produced in an immune cell stimulated by encephalomyocarditis virus variant. The protein has antiviral activity unchanged by immunoprecipitation and immunoneutralisation, is inactivated by proteinase K, is not chosen from antiviral cytokines. The invention is useful for preventing or treating viral infections by administering the protein to a subject suffering from a viral infection. The invention has antiviral activity which is to suppress proliferation or replication of a virus belonging to Orthomyzoviridae, Picornaviridae, Retroviridae or Werpes. The present sequence is a RT-PCR primer used in the amplification of cytokines of the invention ö for suppressing proliferation or replication of virus e.g. herpes virus in immune cell stimulated by encephalomyocarditis virus variant, useful Gaps .. 0 1.7%; Score 13.8; DB 1; Length 21; 88.2%; Pred. No. 4.5e+02; Indels Sequence 21 BP; 4 A; 2 C; 9 G; 6 T; 0 U; 0 Other; 0; Mismatches Example 4; Page 22; 95pp; English. 617 CATCTCAACCAGCGCTC 633 CATCTCAACAAGCCCTC Conservative Local Similarity les 15; Conserv 11 Query Match Best Loca Matches FFXSXOOOOOOOXX à d

BP. ACD13601 standard; DNA; 21 (first entry) Human PF4 DNA probe. 14-AUG-2003 ACD13601; RESULT 464 ACD13601

The state of factor 4; PP4; interleukin-5; UP-10; GROadpha; gamma interferon-inducible protein-10; growth related oncogene; GRObeta; GROgemas; monokane induced by gamma interferon; MIG; GRoadpha; GRObeta; GRObeta; GRObeta; GRObeta; GRObeta; GRObeta; GROpelaid and the state of t Human; inhibiting angiogenesis; Cys-Xaa-Cys chemokine; CXC chemokine; antipsoriatic; dermatological; antiinflammatory, antiallergic; probe; ss ophthalmological;

Homo sapiens

JS2003031645-A1.

13-FEB-2003

21-MAR-2002; 2002US-00104755.

95US-00468819. 98US-00213383. 06-JUN-1995; 09-DEC-1998;

(UNMI) UNIV MICHIGAN.

Kunkel SL; Strieter RM, US2003031645-A1.

13-FEB-2003.

```
The present invention relates to a method of inhibiting angiogenesis. The method comprises administering to an animal, preferably human, a composition that comprises chemokines other than platelet factor 4 (PF4), composition that comprises chemokines other than platelet factor 4 (PF4), composition that comprises chemokines other than platelet factor 4 (PF4), ce.g. interleukin-8 (IL-8), gamma interferon-inducible protein-10 (IP-10), ce.g. interleukin-8 (IL-8), gamma interferon (MIG), epithelial controphil activating protein-78 (ENA-78), granulocyte chemotactic neutrophil activating protein-78 (ENA-78), granulocyte chemotactic protein (PBP) such as connective tissue activating protein-III (CTAP-CT protein (PBP) such as connective tissue activating protein-III (CTAP-CTII), beta-thromboglobulin (betaTG) and neutrophil activating peptide-2 (NAP-2). The method is useful for inhibiting angiogenesis in humans, and is useful for treating tumours and even sarcomas of the lung, ovary, pancreas, stomach, and prostate. The method is also useful for treating comes, recumatoid arthritis, atherosclerosis, idiopathic pulmonary commensions, recumber syndromes propertions (IBroplasais, scleroderma, trachome, pyogenic granuloma contraction and prometris, areachema, vascular adhessions, cynovitis, dermatitis and endometriosis. Also disclosed are methods for inducing angiosesis, stimulating angiogenesis, and promoting wound the process.
                                                  Inhibiting angiogenesis, by administering a pharmaceutical chemokine composition that comprises a chemokine other than platelet factor 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 21 BP; 4 A; 6 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                        Disclosure; Page 30; 156pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the present invention
WPI; 2003-466212/44
```

Match 1.7%; Score 13.8; DB 1; Length 21; Local Similarity 88.2%; Pred. No. 4.5e+02; es 15; Conservative 0; Mismatches 2; Indels 920 CAGCGGGACTITCAGGT 936 Query Match Best Loca Matches

·,

1 caecedescriecaesi 17 ACD13619 standard; DNA; 21 BP 14-AUG-2003 (first entry) ACD13619; RESULT 465 원

Human, inhibiting angiogenesis, Cys-Xaa-Cys chemokine, CXC chemokine, platelet factor 4; PF4; interleukin-8; IL-8; IP-10; GROalpha; gamma interferon-inducible protein-10; growth related oncogene, GRObeta; GROgamma; monokine induced by gamma interferon; MIG; epithelial neutrophil activating protein-78; ENA-78; GCP-2; growth cremofectic protein-2; platelet basic protein; PBP; Granulocyte chemotectic protein; protein-11; CTAP-11; beta76; Marcona; lung; ovary; pancreas; stomach, prostate; haemangioma; chemotectic arthritis; atherosclerosis; IPP; AVW; diopathic pulmonary fibrosis; vascular restenosis; meningioma; arthritis; atherosclerosis; IPP; AVW; diopathic pulmonary fibrosis; vascular restenosis; meningioma; andiotibroma; haemophilic joint; heyaetrophic scar; scleroderma; scleroderma; vascular adhesion; synovitis; dermattis; endometriosis; trachoma; vascular adhesion; synovitis; dermattis; endometriosis; wound haaling; mattinider; vasotropic; antirheumatic; antiatherosclerotic; musical mattinicial mattinic; antiatherosclerotic; antiatherosc Human PF4 DNA PCR primer #2

antiallergic; PCR; primer; ss.

predictor set; protein tyrosine kinase activity modulator; protein tyrosine kinase pathway; protein tyrosine kinase; cytostatic; gene therapy; drug sensitivity; genetic profile; cancer; human;

PCR primer; ss. Synthetic. Homo sapiens

Human src biomarker forward PCR primer SEQ ID NO:440.

01-JAN-2004 (first entry)

ADD14251;

```
The present invention relates to a method of inhibiting angiogenesis. The method comprises administering to an animal, preferably human, a biological amount of a pharmaceutical CXC (Cye-xaa-Cye) chemokine composition that comprises chemokines other than platelet factor 4 (PF4), e.g. interleukin-8 (IL-8), gamma interferon-inducible protein-10 (IP-10), the growth related oncogene (GRO) peptides GROalpha, GRObeta, and GROgamma, monokine induced by gamma interferon (MIG), epithelial captores in a chemote by gamma interferon (MIG), epithelial activating protein-2 (GCP-2), and the NN2-terminal truncated forms of platelet basic protein (PBP) such as connective tissue activating protein-III (CTMP-III), beta-thromboglobulin (betaTG) and neutrophil activating peptide-2 (MP2-1). The method is useful for inhibiting angiogenesis in humans, and is useful for treating tumours and even sarcomas of the lung, ovary, pancreas, stomach, and prostate. The method is also useful for treating tumours and even sarcomas of the lung, ovary, pancreas, stomach, and prostate. The method is also useful for treating fibrosis (IPP), vascular restenosis, arteriovenous malformations (AVM), meningioma, neovascular glaucoma, psoriasis, angiofibroma, haemophilic cours, proteins, hyportrophic scars, soleroderma, trachoma, vascular adhesions, syncolutis, dermatitis and endometriosis. Also disclosed are methods for inducing angioseasis, stimulating angiogenesis, and promoting wound healing. The present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                  Inhibiting angiogenesis, by administering a pharmaceutical chemokine composition that comprises a chemokine other than platelet factor 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.7%; Score 13.8; DB 1; Length 21;
38.2%; Pred. No. 4.5e+02;
lve 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 21 BP; 4 A; 6 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 30; 156pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              936
                                                                                                      21-MAR-2002; 2002US-00104755
                                                                                                                                            95US-00468819
98US-00213383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 cadcadagcriecadar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADD14251/c
ID ADD14251 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              920 CAGCGGGACTTTCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 88.2
Matches 15; Conservative
                                                                                                                                                                                                                                                  Strieter RM, Kunkel SL;
                                                                                                                                                                                                        (UNMI ) UNIV MICHIGAN.
                                                                                                                                                                                                                                                                                            WPI; 2003-466212/44.
                                                                                                                                            06-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 466
δ
```

schu568-1.rng

```
The present invention describes a predictor set comprising a plurality of polymucleotides or polypeptides whose expression pattern is predictive of the response of cells to breatment with a compound that modulates protein tyrosine kinase activity or members of the protein tyrosine kinase activity or members of the protein tyrosine kinase condutating the activity of cells, comprising obtaining a sample of cells, concellating the activity of cells, comprising obtaining a sample of cells, correlating whether the cells, comprising obtaining a sample of cells, correlating the expression of the markers to the compound's ability to correlate the activity of the cells, (2) a plurality of cells innes for identifying polymucleotides and polypeptides whose expression levels correlate with compound sensitivity or resistance of cells associated with a disease state, omprising subjecting the plurality of associated with a disease state, comprising subjecting the plurality of associated with a disease state, omprising subjecting the plurality of an increarray of polymucleotides that predict compounds, analysing the expression pattern of cells associated with a disease state by using the compounds that interact with polymucleotides and polympeptides that predict activities, and can be used in gene therapy. Compounds that interact with polymucleotides and polypeptides are useful in predicting to any protein tyrosine kinase pathways. These may be used in determining drug cativity of compounds that interact with polymucleotides and cativity of compounds that interact with polymucleotides and cativity of compounds that interact with polymucleotides and cativity of compounds that interact with polymucleotides and cativity of compounds that interact with polymucleotides and cativity of compounds that interact with polymucleotides and cativity of compounds that interact with polymucleotides and cativity of compounds that interact with present investing the administration of the present invention.

Compounds the interaction of the pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antibody; platelet aggregation inhibition; platelet integrin receptor; GPIIb/IIIa; activated thrombocyte; thrombosis; myocardial infarction; primer; ss; human; PCR.
                                                                                                                                                                                                                                                                                                                                                   New polynucleotides and polypeptides for predicting the activity of compounds that interact with protein tyrosine kinases and/or protein tyrosine kinase pathways.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.7%; Score 13.8; DB 1; Length 21;
88.2%; Pred. No. 4.5e+02;
tive 0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 21 BP; 7 A; 2 C; 9 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human immunoglobulin heavy chain PCR primer #12.
                                                                                                                                                                                                                                                            Shaw P;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 2; SEQ ID NO 440; 139pp; English
                                                                                                                                                                                                                                                         Lee FY,
                                                                                                                                                                                                          (BRIM ) BRISTOL-MYERS SQUIBB CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               163 TGCACCATCCCGCTGAC 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВЪ.
                                                                                                                 17-JAN-2003; 2003WO-US001981
                                                                                                                                                                18-JAN-2002; 2002US-0350061P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17 TTCACCATCTCGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADE03298 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 88.2.
Best Local Similarity
The Similarity
The Similarity
                                                                                                                                                                                                                                                       Fairchild CR,
                                                                                                                                                                                                                                                                                                      WPI; 2003-636735/60
                      WO2003062395-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-JAN-2004
                                                                     31-JUL-2003
                                                                                                                                                                                                                                                         Huang F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADE03298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 467
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
```

The invention comprises a human antibody for inhibiting platelet aggregation by its exclusive binding to the activated state of platelet integrin receptor GPID/IIIa. The antibody of the invention is useful for preparing a diagnostic composition for determining the number of activated thrombocytes or for blocking the platelet integrin receptor on thrombocytes. The antibody of the invention is useful for treating thrombosis or myocardial infarction. The present DNA sequence represents it PCR primer that was used in an example of the invention.

New antibody, useful for preparing a composition for determining the number of activated thrombocytes or for blocking the platelet integrin receptor on thrombocytes for treating e.g., thrombosis or myocardial

Example 1; SEQ ID NO 28; 80pp; English.

infarction.

Roettgen P;

Peter K,

Knackmuss S,

Schwarz M,

Buettner C,

Little M;

WPI; 2003-405595/39

(AFFI-) AFFIMED THERAPEUTICS AG

05-OCT-2001; 2001EP-00123851

Homo sapiens

EP1300419-A1 09-APR-2003 05-OCT-2001; 2001EP-00123851

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                  Human homeo box D3 (HOXD3) gene polymorphism detecting ASO primer #15
                                                                                                                                                                                                                                                                                                                                                                                                                                Human, homeo box D3; HOXD3; polymorphism; developmental disorder;
haplotype; HT; allele-specific oligonucleotide; ASO; tumour; therapy;
drug screening; cytostatic; primer; ss.
                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                 1.7%; Score 13.8; DB 1; Length 21; 88.2%; Pred. No. 4.5e+02;
                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                  Sequence 21 BP; 4 A; 6 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Koshy B, Kumar AM;
                                                                                                                                                                                                                                                                                                                676
                                                                                                                                                                                                                                                                                                                                                                      뗦.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GENA-) GENAISSANCE PHARM INC
                                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAY-2000; 2000US-0207076P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-MAY-2001; 2001WO-US016982
                                                                                                                                                                                                                                                                                        88.2%;
                                                                                                                                                                                                                                                                                                                660 CTCATGCAGCTGAAGCT
                                                                                                                                                                                                                                                                                                                               CTCCTGCAGCTGCAGCT
                                                                                                                                                                                                                                                                                                                                                                     AAD25198 standard; DNA; 15
                                                                                                                                                                                                                                                                                                                                                                                                    12-MAR-2002 (first entry)
                                                                                                                                                                                                                                                                                        Local Similarity 88.2
nes 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Duda A, Kazemi A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200190127-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                    AAD25198;
                                                                                                                                                                                                                                                                                                                               18
                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                           Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                      RESULT 468
à
                                                                                                                                                                                                                                                                                                                               g
```

```
WPI; 1993-182554/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9310239-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-NOV-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-JUN-1992;
                                                                                                                                                                                                                                                                                                                                                                                        25-MAR-2003
23-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Simmonds P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-MAY-1993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                               AAQ43126;
                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                         RESULT 470
                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                        ઠે
                                                                                                        The invention relates to genetic variants of the homeo box D3 (HOXD3) gene. HOXD3 gene includes 9 polymorphic sites PS1-PS9. Haplotypes (HTS) or haplotype pairs (HP) for PS1-PS9 in the HOXD3 gene are useful for improving the efficiency and reliability of several steps in the discovery and development of drugs for treating diseases associated with HOXD3 activity, e.g., developmental disorders and tumours. HOXD3 ascociated with expressing HOXD3 protein for use in screening for candidate drugs to treat diseases related to HOXD3 activity of HOXD3 and in expressing HOXD3 protein for use in screening for candidate drugs to the variation on the biological activity of HOXD3 as well as on the binding affinity of candidate drugs targeting HOXD3 as well as on the binding affinity of candidate drugs targeting HOXD3 as well as on the binding affinity of addidate drugs targeting HOXD3 as well as on the binding affinity of addidate drugs targeting HOXD3 as well as on the binding affinity of addidancers and tumours. An antibody against HOXD3 is useful in a variety of diagnostic and prognostic formats and therapeutic methods. A recombinant non-human organism is useful in studying expression of the HOXD3 isogenes in vivo. Allele-specific oligonuclectides (ASO) are useful as probes and primers and for assaying a polymorphism in the target region. The present sequence is an ASO primer used for detecting human HOXD3 gene polymorphisms
                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                         New genetic variants of Homeo Box D3 for studying expression and function of the protein, and for screening drugs to treat diseases e.g. developmental disorders and tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              numan; endothelial differentiation, G-protein coupled receptor 6; EDG6; haplotype; cancer; angiogenesis; inflammation; chromosome 19pl3.3; cytostatic; antiinflammatory; gene therapy; SNP; single nucleotide polymorphism; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New genetic variants of endothelial differentiation, G-protein coupled receptor-6 gene for studying expression, function of the gene and expressing EDG6 protein for use in screening drugs to treat cancer, inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                    ..
0
                                                                                                                                                                                                                                                                                                                                                                                                        Score 13.6; DB 1; Length 15;
Pred. No. 3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human EDG6 gene allele specific primer SEQ ID NO: 71.
                                                                                                                                                                                                                                                                                                                                                                              Sequence 15 BP; 3 A; 7 C; 3 G; 1 T; 0 U; 1 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Mismatches
                                                                                     Claim 16; Page 13; 66pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABL45877 standard; DNA; 15 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GENA-) GENAISSANCE PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-JUL-2001; 2001WO-US022523.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-JUL-2000; 2000US-0218727P.
                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 92.9%;
Matches 13; Conserved:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               348 GCCAGCGCCAACCT 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCAGCGCCAACYT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
WPI; 2002-075363/10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-171804/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Koshy B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200206446-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kliem SE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABL45877;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 469
ABL45877
  ð
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The sequences given in AAQ43112-33 are primers which were used to amplify specific regions of the hepatitis C virus (HCV) genome. Analysis of of the HCV genome revealed the existance of three distinct groups of HCV. Analysis of the region encompassing -255 to -62 of the 5' non coding region (NCR) (see AAQ43058-75) showed a difference of 9-14% in the nucleotide sequences between the three groups. Two of the groups identified were similar to those of HCV varients termed type 1 and 2, whilst the third appeared to represent a novel type of virus. Comparison of the NS3 region (see AAR37927-30) showed a high degree of sequence the same degree different is pind, ognetically different to type 1 and 2. The same degree different is into was noted in the NS-5 (see AAR37931) between type 3 and type 1 sequences. (Updated on 25-MAR-2003 to correct
                                                           The present invention provides the gene, protein and cDNA sequences of the human endothelial differentiation, G-protein coupled receptor 6 (EDG6). Also identified are single nucleotide polymorphisms (SNPs) found within the sequences. The sequences can be used in the identification of the haplotype of an individual, and in the treatment of cancer, angiogenesis and inflammation. The present sequence is an allele specific primer for the EDG6 gene, which is found on chromosome 19pl3.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA encoding antigenic peptide(s) of new types of hepatitis C virus - for diagnosing and treating HCV infection, screening blood samples and identifying different HCV types.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Non-coding region; hepatitis C virus; blood donor; type 2; type 1; HCV; NS-5; phylogeny; differentiation; NS-3; core region; type 3; PCR; amplify; polymerase chain reaction; primer; NS4; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.6%; Score 13.6; DB 1; Length 15; 92.9%; Pred. No. 3e+02; 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                    Seguence 15 BP; 1 A; 4 C; 7 G; 2 T; 0 U; 1 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 27; 120pp; English.
Claim 16; Page 14; 111pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HCV type 2 NS-4 sense primer 281.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (COMM-) COMMON SERVICES AGENCY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92GB-00013362.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92WO-GB002143.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91GB-00024696.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               233 GGCCGTGGCTCAGC 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAQ43126 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GGCCGTGGCTCAGS 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 92.9
hes 13; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chan S,
```

ВР

```
Rat neu promoter, target sequence, E1A-induced repression;
cell transformation, cancer treatment, adenovirus suppression; ss.
                                                                                                 20-mer from the rat neu promoter.
             1680/c
AAQ94680 standard; DNA; 20
                                                                         (first entry)
                                                                                                                                                                  Rattus rattus.
                                                                                                                                                                                                                                                                                                                              03-DEC-1993;
15-JUL-1994;
                                                                                                                                                                                                   misc feature
                                                                                                                                                                                                                                                     WO9516051-A2
                                                                         01-FEB-1996
                                                                                                                                                                                                                                                                              15-JUN-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAR-2003
07-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                        Hung M,
                                                 AAQ94680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ82307;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 473
             AAQ94680/
                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                          Sequence corresp. to fragment of Peptide I of light subunit of rat gammaglutamylcysteine synthetase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gamma-glutamylcysteine synthetase (GCS) purified from rat kidney subcates under denaturing conditions to yield two nonidentical subunits a heavy subunit of Mr - 73,000 and a light subunit of Mr - 27,700. The purified light subunit was reacted with trypsin and Edman degradation was carried out. The sequence of two apparently homologous peptides were obtd. The AA Reguence of the peptides obtd. - Peptide I & Peptide II - are given in AAR63239 & AAR63240. An oligo probde was Peptide and synthesised corresp. to the sequence deduced from Peptide I. The mRNA sequence corresp. to the sequence deduced from Peptide I. AAQ77981, and the determined DNA sequence is AAQ77983. The probe is AAQ77981, and the determined DNA sequence is AAQ77983. The probe is derived from Peptide I. Deoxyinosine was substd. at the wobble posns in two of the codons. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gamma-Glutamylcysteine synthetase light subunit - and cDNA coding for it, potentially useful for gene therapy.
                                                                                                                                                                                                                                                                                                                Gamma-glutamylcysteine synthetase; enzyme; light subunit; peptide; ss
                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                            1.6%; Score 13.6; DB 1; Length 20; ilarity 80.0%; Pred. No. 4.7e+02; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 13.6; DB 1; Length 20;
Pred. No. 4.7e+02;
0; Mismatches 4; Indels
                      Sequence 20 BP; 2 A; 10 C; 3 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 6 A; 5 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Weister A, Huang C, Anderson ME;
                                                                                                208 GTTCCCAGCCTCTCCAGAA 227
                                                                                                               1 GGTCCCACCCTCTCTGTA 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example; Page 26; 46pp; English.
                                                                                                                                                                                      AAQ77983 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                             93US-00045808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                    94WO-US003856
                                                                                                                                                                                                                                       (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 80.0°
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CORR ) CORNELL RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1994-341857/42,
                                                Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                  WO9424276-A1
                                                                                                                                                                                                                                                                                                                                                                                                                    17-APR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                             08-APR-1993;
                                                                                                                                                                                                                                         25-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                            27-OCT-1994
                                                                                                                                                                                                                                                     09-JUN-1995
PN field.)
                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                               AAQ77983;
                                                                                                                                                               RESULT 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loca
Matches
SXS
                                                                                                                                                                                      à
                                                                                                                       g
```

```
AAQ94680 is a 20-mer from the rat neu promoter, which contains the human and rat neu promoter consensus sequence TGGAATG, a putative target sequence for BIA-induced cell transformation repression. BIA-induced repression can be used to suppress cancer cells (esp. breast and ovarian cancer cells), and adenoviruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence sampled mapping; genomic analysis; complex genome mapping; cosmid library; chromosome 11; sequence tagged site; STS analysis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                            or
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Suppressing neu oncogene mediated cell transformation - with LT adenoviral E1A gene products, partic. for treatment of cancer.
                     7. .13
/*tag= a
/note= "E1A-induced repression target sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 1.6%; Score 13.6; DB 1; Length 20; Best Local Similarity 80.0%; Pred. No. 4.7e+02; Matches 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chromosome 11 (locus D11S1139) STS primer cSRL-4f3-tA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 3 A; 3 C; 7 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1; Page 101; 144pp; English.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                Zhang YJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           447 CCAGATGCCTTCCAGGAAGA 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cchacrecarrecheda 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
                                                                                                                                                                                                       94WO-US013868
                                                                                                                                                                                                                                                  93US-00162406
94US-00276359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAQ82307 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                   (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                Yu D, Matin A,
                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1995-224332/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
```

0

456 TTCCAGGAAGAGCTCCAGGA 475

à

1 TTCCAGGAAGCTCTTCAAGA 20

þ

```
Sequences were determined from the ends of chromosome 11-specific cosmids by automated sequencing without intermediate subcloning. A sample of 371 DNA sequence fragments were determined and of these, 277 were suitable for STS primer prediction by computer analysis (using the "Primer" program available from E.Lander, MIT). The STSs and cosmids were mapped by in situ hybridisation, somatic cell hybrid analysis or both. Using this method, 370 STSs specific for human chromosome 11 were generated most of them were regionally mapped. This procedure illustrates a novel method for sequencing complex genomes, designated "sequence sampled mapping method is useful for the completion of high density sequence-based maps, and ultimately, for the complete sequencing of genomic DNA directly from cosmid clones. See
                                                                                                                                                                                                                               Sequencing complex genomes, present as fragments in a cosmid library - k sequencing end-specific nucleotides of each clone then correlating with spatial relationship of cosmid, esp. for mammalian chromosomes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alaserpin; serpin; serine protease-inhibitor; elastase-inhibitor; chymotrypsin-inhibitor; plant protectant; insect resistance; crop improvement; transgenic plant; alfalfa; Medicago sativa; Manduca sexta; primer; PCR; polymerase chain reaction; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . Match 1.6%; Score 13.6; DB 1; Length 20; Local Similarity 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 6 A; 5 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                        (SALK ) SALK INST BIOLOGICAL STUDIES.
                                                                                                                                                                                                                                                                                                     Example 4; Page 75; 128pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421 TCCGGCTGCCCCTGCTAGT 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20 TCTGGCTGCCGATACTAGT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               M. sexta alaserpin PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      92US-00994133.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90US-00464310.
                                                          94WO-US006810.
                                                                                         93US-00078471
93US-00117952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAQ97488 standard; cDNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (revised)
                                                                                                                                                                        Evans GA, Smith MW;
                                                                                                                                                                                                     WPI; 1995-036508/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-DEC-1992;
                                                                                          15-JUN-1993;
07-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-JAN-1990;
                                                            15-JUN-1994;
WO9429486-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-MAR-2003
22-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US5436392-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-JUL-1995
                              22-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAQ97488;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Primers T41001-T41382 are derived from novel human gene signature (GS) sequences which did not match with sequences deposited in Genbank release 76. The GS sequences (T19001-T26837) were obtained from 3'-directed cDNA libraries prepared from various human tissues; synthesis of cDNA was initiated from the 3'-end of mRNA by using poly(T) as the sole primer. Bach library is constructed so as to reflect accurately the relative abundance of different mRNAs in the particular tissue from which it was
                                                                                                                                                                                                      PCR primers given in AAQ97487-88, corresp. to nt. 73-92 and 835-854 of M. sexta alaserpin cDNA (AAQ97486) respectively, were used to generate a 782 bp PCR fragment used as a DNA probe for the M. sexta alaserpin gene in transgenic alfalfa plants. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                   Transgenic plant containing novel serine protease inhibitor gene of M. sexta - provides protection for the plant against attack by insects, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Single-stranded DNA for identifying gene signatures - isolated from 3'-directed human cDNA library that reflects relative abundance of corresp
                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene signature; messenger RNA; mRNA; relative abundance; frequency; human; cloning; mapping; non-biased library; diagnosis; detection; cell typing; abnormal cell function; primer; PCR; amplification; polymerase chain reaction; ss.
                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                          / Match 1.6%; Score 13.6; DB 1; Length 20; Local Similarity 80.0%; Pred. No. 4.7e+02; les 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human gene signature HUMGS01015-derived anti-sense primer.
                                                                                                                                                                                                                                                                                           Sequence 20 BP; 4 A; 7 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 7; Fig 8; 2245pp; Japanese.
(ARIZ-) ARIZONA TECHNOLOGY DEV CORP
                                 Thomas JC, Bohnert HJ, Kanost MR;
                                                                                                                                                                                                                                                                                                                                                                                                   236 CGTGGCTCAGCTCTTGAAGG 255
                                                                                                                                                                         Example 7; Col 16; 24pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                      CGCTCCTCAGCTCTTGAAAG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA in specific human tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT41182 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93JP-00355504.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94WO-JP001916.
                                                                                                                       sexta - provides protection alfalfa against thrips.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-DEC-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matsubara K, Okubo K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1995-206931/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MATS/) MATSUBARA K. (OKUB/) OKUBO K.
                                                                    WPI; 1995-268881/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9514772-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUN-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAT41182;
                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 475
                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAT41182,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

ö

Gaps

; 0

4; Indels

0; Mismatches

ВЪ

Antisense, anti-proliferative, tumour; cancer, raf, oncogene, phosphorothicate, 2' sugar modification; psoriasis; restenosis;

urogenital; ss.

Synthetic

.20
 *tag= a
 /note= "phosphorothioate linked"

95WO-US007111 94US-00250856

31-MAY-1995; 07-DEC-1995

(ISIS-) ISIS PHARM INC

31-MAY-1994;

Boggs RT;

Monia BP,

WPI; 1996-030518/03.

Location/Qualifiers

misc_feature

WO9532987-A1

Human A-raf kinase coding region antisense oligonucleotide

04-JUL-1996 (first entry)

AAT27511;

```
ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The primers given in AAQ86594-86603 were used in the RT-PCR amplification of ORR2 and part of ORF3 of a Chinese isolate of HEV. Amplified fragments were manipulated into pGEX vectors for production of GST-HEV antigen fusion proteins in E. coli. (Updated on 25-MAR-2003 to correct PN field.)
derived. The appearance frequency of a given GS in a cDNA library can be determined (esp. using primers and probes derived from the GS sequences) as a means of diagnosing abnormal cell function or for recognising different cell types. The primers T41181-2 amplify clone pm2369 which comprises the GS HUMGS001015 (T20015), located on chromosome 17
                                                                                                                                                                                                                                                                                                                                                                                                                                Hepatitis E virus; HEV; ORF2; antigen; vaccine; immunogen; primer; PCR; polymerase chain reaction; ss.
                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antigens of hepatitis E virus (HEV) - selectively immuno:reactive to convalescent and/or acute phase circulating antibodies to HEV.
                                                                                                                                                        ;
0
                                                                                                                      1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
ative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ñ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hui
                                                                                           Sequence 20 BP; 6 A; 7 C; 2 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ū
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anderson DA, Locarnini SA, Torresi J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MACF-) MACFARLANE BURNET CENT MEDICAL.
                                                                                                                                                                                     890 GCATGTGAGAACGTATTTTA 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; Page 21; 78pp; English.
                                                                                                                                                                                                        20 GCTTGAGAGGACGTATTTGA 1
                                                                                                                                                                                                                                                                                          AAQ86599 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94WO-AU000572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                93AU-00001423
93AU-00002964
                                                                                                                                                                                                                                                                                                                                                      (revised)
(first entry)
                                                                                                                                                      16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                  HEV ORF2.0 PCR 5' primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1995-139601/18.
                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9508632-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               L5-DEC-1993;
                                                                                                                                                                                                                                                                                                                                                     25-MAR-2003
28-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                          AAQ86599;
                                                                                                                                                        Matches
                                                                                                                                                                                                                                                             RESULT 476
                                                                                                                                                                                                                                                                              AAQ86599
    8X333333
                                                                                                                                                                                      à
                                                                                                                                                                                                              g
```

Oligo:nucleotide(s) targetted to nucleic acids encoding human raf capable of inhibiting raf expression, used in treatment of hyper:proliferative disorders.

Disclosure; Page 22; 65pp; English.

```
AAT27508-T27520 are human A-raf kinase antisense oligonucleotides used for the inhibition of raf expression. Human A-raf is expressed in ucoganital tissues. The oligonucleotides (ONs) are targeted to either coding region, stop signal or 5' or 3' untranslated region (UTR) mRNA encoding human A-raf. The ONs are phosphorothioate linked. The ONs are used to inhibit expression of human raf in partic. in conditions associated with hyperproliferation e.g. cancer, restenosis, and psoriasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chemokine receptor 88-2B; rheumatoid arthritis; tumour; atherosclerosis; asthma; viral infection, ADS; inflammation; autoimmune disease; therapy; diagnosis; leukocyte trafficking; G protein coupled receptor; macaque; polymerase chain reaction; PCK; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 5 A; 2 C; 7 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chemokine receptor 88-2B 5' primer 88-2B-fl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                278 AAAGTIGTIGAAACTIGTAG 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 AATGCTGGTGGAACTTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВР.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT85170 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-DEC-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 80.05
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT85170;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAT85170/
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
```

ö

Gaps

ö

Query Match 1.6%; Score 13.6; DB 1; Length 20; Best Local Similarity 80.0%; Pred. No. 4.7e+02; Matches 16; Conservative 0; Mismatches 4; Indels

659 TCTCATGCAGCTGAAGCTCA 678 rerrandececrenanderea 20

à 셤 AAT27511 standard; DNA; 20 BP

RESULT 477
AAT27511
ID AAT2751
XX

Sequence 20 BP; 5 A; 5 C; 5 G; 5 T; 0 U; 0 Other;

ô

ö

Gaps

ö

Sequence 20 BP; 2 A; 6 C; 4 G; 8 T; 0 U; 0 Other;

for use as disease models

947 GAGTCAACAGCTGGGCAGGG 966

Example 3; Page 15; 40pp; English.

```
Primers AAT96998-T97044 are used to detect alternative splice variants of the human presentlin-2 (PS-2) gene from different tissues e.g. brain, heart, liver, lung, placenta and skeletal muscle. Primers AAT97024-T97044 are derived from intronic sequences. The primers used to detect the splice variants can be used to diagnose Alzhaimer's disease, particularly in Volga-Germans (a culturally distinct subpopulation in Russia). The PS-2 gene variants can also be used in the creation of transgenic animals
                                                                                                                                                                               Query Match
1.6%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.7e+02;
Matches 16; Conservative 0; Mismatches 4; Indels
g
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                    5' Primer 88-2B-f1 (AAT85170) corresponds to the sense strand of human chemokine receptor 88-2B cDNA (see AAT85162) at nucleotides 844-863. 3' Primer 88-2B-r1 (AAT85171) corresponds to the antisense strand at nucleotides 1023-1042. The primers were used in the PCR amplification of human macrophage cDNA, yielding clone 777, a full-length cDNA clone of 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Variant presenilin-2 gene - useful for diagnosis of Alzheimer's disease.
                                                                                                                                                                                                                 New nucleic acid encoding chemokine receptors 88-2B and 88C - used to modulate leukocyte trafficking, e.g. for treatment of inflammation, tumours, viral infections, auto-immune diseases, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Primer, PCR, amplification, presentlin, human, alternative splicing, detection, diagnosis, Alzheimer's disease, transgenic animal, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Presenilin-2 alternative splicing variant detection primer 5PS2X9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
                                                                                                                                                                                                                                                                                                                                                                                                                                 1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
rative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 3 A; 6 C; 5 G; 6 T; 0 U; 0 Other;
                                                                                                                                                               Raport CJ;
                                                                                                                                                                                                                                                                             Example 2; Page 53; 65pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              459 CAGGAAGAGCTCCAGGAACT 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          caggaagacracracacr 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT97039 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fuldner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96US-0014860P
                                                          96WO-US020759.
                                                                                     95US-00575967.
96US-00661393.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97WO-US004683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    UNIV WASHINGTON.
INST GENOMIC RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                             Gray PW, Schweickart VL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 80.0 es 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hardy J, Goate AM,
                                                                                                                                                                                         WPI; 1997-341689/31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1997-512739/47
                                                                                                                                  (ICOS-) ICOS CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9738133-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-APR-1996;
                                                           20-DEC-1996;
                                                                                       20-DEC-1995;
                                                                                                      07-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-JUL-1998
    WO9722698-A2
                                26-JUN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAT97039;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UYSF-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GENO-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ( MIND)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                  -2B
    엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
This is a 5' PCR primer used in the amplification of a 846 base pair fragment corresponding to the type I interleukin-1 receptor (ILIR) bases 190-1036. The amplification product was identified as human type ILIR probe, and used to show areas of ILI protein expression. Expression of ILIR, in cells and tissues can be modulated by compositions comprising sugar-modified oligomers which are able to specifically hybridise with target areas of its encoding sequence. The composition can be used for treatment of disease in humans caused by excessive receptor expression, eq. inflammation. When labelled they can be used diagnostically to determine overexpression of ILIR, also to determine localisation and distribution of this expression for research, diagnostic or therapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2^\prime-\mathrm{substituted} oligonucleotide(s) specific for interleukin-1 receptor type I - used to modulate expression and detect overexpression of the receptor.
                                                                                                                                                                                                         Type I interleukin-1 receptor; ILIR; human; probe; ILI protein; PCR; sugar-modified oligomer; hybridisation; inflammation; primer; amplification; ss.
                                                                                                                                                                               Human type I interleukin-1 receptor 5' PCR primer 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Geiger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dean N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 3; Page 17; 63pp; English.
20 GAACAACAGCTGGTCAGAG 1
                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                     97WO-US007147.
                                                                                                                                                                                                                                                                                                                                                                                                                 96US-00651692.
                                                                                        AAV01099 standard; DNA; 20
                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bennett CF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1998-018646/02.
                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                     12-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                 21-MAY-1996;
                                                                                                                                                                                                                                                                                                                        WO9744656-A1
                                                                                                                                                   09-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Miraglia L,
                                                                                                                                                                                                                                                                                                                                                    27-NOV-1997
                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                     AAV01099;
                                                          480
                                                                        RESULT
```

Sequence 20 BP; 3 A; 10 C; 3 G; 4 T; 0 U; 0 Other;

```
PCR primers AAX04561-72 were used to amplify cDNA encoding MCG7. The MCG7 protein has gene regulatory functions, and has homology to a heat shock protein or heat shock-binding protein. The specification also describes MCG4, which is homologous to guanine nucleotide exchange factor protein, and MCG18, which is homologous to a zinc finger protein. Detection of mutations in the MCG genes can be used to oidentify the propensity for various types of cancer, and to treat, arrest, or otherwise ameliorate, the effects of a cancer in an animal or bird
     MCG4 protein; gene regulatory function; heat shock protein;
guanine nucleotide exchange factor protein; MCG7 protein;
heat shock-binding protein; MCG18 protein; zinc finger protein; cancer;
PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New gene-expression regulatory genes, mcg4, mcg7, and mcg18 - encode zinc finger protein, a GEF, and a heat shock or heat shock binding protein, useful to detect and treat cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCR primer, probe; human papillomavirus, HPV; A region, B region, C region; D region; detection, HPV genotype; cervical cancer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.6%; Score 13.6; DB 1; Length 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 4 A; 2 C; 8 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                        Grimmond S, Gartside M,
                                                                                                                                                                                                                                                                                                                                                                                       (COUN-) COUNCIL QUEENSLAND INST MEDICAL RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 14; Page 53; 80pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              327 GAAGCTGTGGAGCAACTTGG 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Type-specific HPV probe HPV6 Pr2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                              97AU-00006972.
97AU-00006973.
97AU-00006974.
98AU-00001458.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTAGAIGIGGAICAGCIIGG
                                                                                                                                                                                                                                98WO-AU000380
                                                                                                                                                                                                                                                                                                                                                    98AU-00001460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAX61873 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                       Silins G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human papillomavirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-070146/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                             Homo sapiens
                                                                                                                                                          WO9853061-A1
                                                                                                                                                                                                                              22-MAY-1998;
                                                                                                                                                                                                                                                                                                                 22-JAN-1998;
                                                                                                                                                                                                                                                                                                                                                    22-JAN-1998;
                                                                                                                                                                                                                                                                                                 23-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9914377-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-AUG-1999
                                                                                                                                                                                             26-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                        Hayward N,
                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAX61873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAX61873/
ID AAX6
     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                  Human, raf, diagnosis, abnormal proliferative state, hyperproliferation, cancer; psoriasis, blood vessel restenosis, A-raf, antisense, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oligonucleotides targeted to human raf mRNA useful for treating and diagnosing abnormal proliferative states and inhibiting raf expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention provides antisense oligonucleotides targeted to mRNA encoding human raf and capable of inhibiting raf expression. The antisense oligonucleotides are useful for treating and diagnosing abnormal proliferative states and hyperproliferation (e.g. cancer, psoriasis, or blood vessel restenosis), and inhibiting raf expression. Sequences AAZ11538-550 represent antisense oligos for human A-raf
                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ·,
                  1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
Live 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.6%; Score 13.6; DB 1; Length 20; 0.0%; Pred. No. 4.7e+02; ve 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                 Human A-raf specific antisense oligo ISIS # 9063.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 5 A; 2 C; 7 G; 6 T; 0 U; 0 Other;
                                                                                      204 CIGGGIICCCAGCCCTCICC 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Col 14; 29pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    278 AAAGTTGTTGAAACTTGTAG 297
                                                                                                                    1 cresearcecarcaceree 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 AATGCTGGTGGAACTTGTAG 20
                                                                                                                                                                                                              ВЪ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96US-00756806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94US-00250856.
95WO-US007111.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80.08;
                                                                                                                                                                                                            AAZ11541 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAX04563 standard; DNA; 20
                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 80.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ISIS-) ISIS PHARM INC
Query Match
Best Local Similarity
Thes 16; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Monia BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-527018/44.
                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-MAY-1995;
                                                                                                                                                                                                                                                                                05-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                        US595229-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Boggs RT,
                                                                                                                                                                                                                                             AAZ11541;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX04563
                                                                                                                                                                           RESULT 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX04563
```

Hancock J;

ö

Gaps

ö

Indels

25-MAR-1999

PCR primer M7R used to amplify mcg7 cDNA.

BXXXXX

 $\dot{\delta}$ d

20;

```
AAZ04965
셤
                                                                                                                                                                                                                                                                                                                                                                                                        ծ
                                                                                                                                                                                                                                         Cor detecting and/or identifying human papillomavirus (HPV) present in a biological sample. The method comprises amplification of a polymucleic acid fragment of HPV using a 5. primer specifically hybridizing to the A region or B region of the genome of at least one HPV type, and 3. primer specifically hybridizing to the C region of at least one HPV type, and phyridization of the amplified fragments with at least one HPV type. The primers individually or as a combination of at least one HPV type. The primers individually or as a combination of 5. primer and 3. Primer, and the probes are used in the detection and/or identification of HPV present in a biological sample. An isolated HPV polymucleotide, or fragment, can also be used as primer in a method for detection and/or identification of HPV present in a sample. Identification of the importance. The presence of high-risk HPV types is a prognostic marker importance. The presence of high-risk HPV types is a prognostic marker for development and detection of cervical cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                 AAX61849-X61982 and AAX62002-X62093 represent PCR primers and probes used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Vaccine, eye disease, conventional trachoma, nonendemic trachoma, paratrachoma, inclusion conjunctivitis, genital disease, perihepatitis, nongonococcal uretritis, epidymitis, cervicitis; salpingitis; PCR primer, bartholinitis; pheumopathy, venereal lymphogranulomatosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCR primer used to amplify an ORF of Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . Match 1.6%; Score 13.6; DB 1; Length 20; Local Similarity 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4; Indels
                                                                                                                                                                     Detection and identification of human papillomavirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20 BP; 4 A; 2 C; 8 G; 6 T; 0 U; 0 Other;
                                                                                                               Ter Schegget
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     856 CCACTGGTGATGAGCCCAAC 875
                                                                                                               Kleter B,
                                                                                  B
                                                                                                                                                                                                    Claim 8; Page 30; 78pp; English
                                                                      (INNO-) INNOGENETICS NV.
(DELF-) DELFTS DIAGNOSTIC LAB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 CCACAGTIGATIACCCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВР.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97FR-00015041.
97FR-00016034.
98US-0107077P.
               98WO-EP005829.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-IB001939
                                         97EP-00870136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAZ03721 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16; Conservative
                                                                                                              Quint W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
Chlamydia trachomatis.
                                                                                                                                           WPI; 1999-244048/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-NOV-1997;
17-DEC-1997;
04-NOV-1998;
               14-SEP-1998;
                                                                                                               Van Doorn L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9928475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ03721;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      %X#XX#XX#XX#XX#XX#XX#XX#XX#XX#XX#X
```

```
ö
                                                                                                  PCR primers AA201426-206209 were used to amplify open reading frames (ORFs) of the genome of Chlamydia trachomatis (see AA201425). These ORFs anchode polygeptides (see AA36754-Y37949) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachom, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis, gentral diseases such as nongonococcal uretritis, engiquentis, cervicitis, allipsisis, perihepatitis, bartholinitis, penumopathy in breast feeding infants, and venereal lymphogranulomatosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vaccine, eye disease, conventional trachoma, nonendemic trachoma, paratrachoma; inclusion conjunctivitis; genital disease, perihepatitis, nongonococcal uretritis, epidymitis; cervicitis; salpingitis; PCR primer; bartholinitis; pneumopathy; veneral lymphogranulomatosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCR primers AAZ01426-Z06209 were used to amplify open reading frames (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs
                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                           ·
0
                                                                                                                                                                                                                                                                                                                                                                                                    1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PCR primer used to amplify an ORF of Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                           4; Indels
                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 6 A; 5 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genome sequence of Chlamydia trachomatis.
                                  Genome sequence of Chlamydia trachomatis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 1732; 1755pp; English.
                                                                         Disclosure; Page 1630; 1755pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  658 TICTCATGCAGCTGAAGCTC 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 Trcrcaggcagcraraggrc 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97FR-00015041.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97FR-00016034.
98US-0107077P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-IB001939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAZ04965 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1999-371125/31.
WPI; 1999-371125/31.
                                                                                                                                                                                                                                                                                                                                                                                                                          1 Similarity
16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W09928475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-DEC-1997;
04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-0CT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Griffais R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ04965;
                                                                                                                                                                                                                                                                                                                                   diseases
                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 485
```

schu568-1.rng

8888888888888888

```
Page 1694; Disclosure; 1912pp; English.
                                                                                                                                                                                                                                                                                                                                                                             407 GCTCCAGCAGGCTCTCCGGC 426
                                                                                                                                                                                                                                                                                                                                                                                                          1 dercadecadecrercedec 20
                      Claim 1; Page 29; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAX94754 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97FR-00014673,
98US-0107078P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-IB001890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-SEP-1999 (first entry)
                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
Chlamydophila pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-357842/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W09927105-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-NOV-1997;
04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Griffais R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAX94754;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAX94754
      ò
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
pagainst Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microoraganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases auch as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion epidymitis; genital diseases such as nongonococcal uretrits, epidal diseases such as nongonococcal uretritis, epidymitis, carloinis, perihepatitis, bartholinitis; phenomopathy in breast feeding infants; and venereal lymphogranulomatosis. The polypeptides of the invention may be of use in treating these diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           or 2'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HER-2; c-neu, ErbB2; transmembrane receptor; tyrosine kinase activity; epidermal growth factor receptor; EGFF; HER-1; cancer; breast cancer; ovarian cancer; acancer; antisense oligonucleotide; expression; hyperproliferative disease; phosphorothioate linkage; ss.
                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linkage. A, T and G are optionally 2'-Methoxyethoxy fluoro residues, C is optionally 5-Methyl-cytidine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New antisense sequences used to treat hyperproliferative conditions, especially cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
"Optional phosphorothioate internucleoside
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag= d
/note= "Optional phosphorothioate internucleoside
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        '*tag= c
'note= "Phosphorothioate internucleoside linkage"
                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                       Ouery Match 1.6%; Score 13.6; DB 1; Length 20; Best Local Similarity 80.0%; Pred. No. 4.7e+02; Matches 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    *tag= b
note= "Optionally 2' fluoro residue"
                                                                                                                                                                          Sequence 20 BP; 8 A; 1 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HER-2 antisense oligonucleotide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Witters LM;
                                                                                                                                                                                                                                                                    759 GAGATGGCAGAACTGGAGAA 778
                                                                                                                                                                                                                                                                                                 1 GAGAAGGATGATCTGGAGAA 20
                                                                                                                                                                                                                                                                                                                                                                              BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-00048804,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US006492.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PHARM INC.
STATE RES FOUND.
                                                                                                                                                                                                                                                                                                                                                                           AAZ31067 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15. .20
/*tag≈ d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linkage"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lipton A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-610749/52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ISIS-) ISIS
(PENN-) PENN
                                                                                                                                                                                                                                                                                                                                                                                                                                         17-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9948906-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sennett CF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                            AAZ31067;
```

```
Sequences AA231067-231076 (excluding AA231071) are antisense oligonucleotides that are complimentary to regions of the human HER-2 nucleotide sequence AAZ31071. This oligonucleotide is complimentary to nucleotides sequence AAZ31071. This oligonucleotide is complimentary to nucleotides 1419-1438 of the HER-2 sequence, and targets the coding transmembrane receptor, with tyrosine kinase activity, HER-2 is related to the epidermal growth factor receptor (EGFR or HER-1). Aberrant HER-2 expression is present in a wide number of cancers, especially breast, ovarian and gastric cancers. This sequence is used in the invention to design 12-25 nucleotide oligonucleotides that decrease the expression of modulating the expression of the invention can also be used for modulating the expression of the invention can also be used for modulating the expression of the invention can also be used for modulating the expression of the invention can also be used for modulating the expression of the invention can also be used for modulating the expression of the invention can also be used for modulating the expression of the invention can also be used for modulating the expression of the invention to also be used for modulating the expression of the invention to also be used for modulating the expression of the invention to also be used for modulating the expression of the invention to the end with the expression of the expression of the end of the expression of the expression of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the end of the en
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAX91991-X97517 represent PCR primers used to amplify open reading frames and other nucleic acid sequences from the genome of Chlamydia pneumoniae (see AAX91990). C. pneumoniae causes respiratory disease such as pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema nodosum or pharyngitis. The polypeptides encoded by the open reading frames of the C. pneumoniae ganome (see AAX34584- AAX3689) can be used in immunogenic compositions as vaccines. Vectors containing C. pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis; sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HER-2, particularly hyperproliferative diseases such as cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCR primer used to amplify an ORF of Chlamydia pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20 BP; 2 A; 6 C; 9 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genome sequence of Chlamydia pneumoniae.
```

0

RESULT 486

à

```
Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis; sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primer; ss.
                                                                                                            PCR primer used to amplify an ORF of Chlamydia pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                     Genome sequence of Chlamydia pneumoniae.
                                   AAX96364 standard; DNA; 20 BP
                                                                                     (first entry)
                                                                                                                                                                                                   Chlamydophila pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-357842/30.
                                                                                                                                                                                                                                                                                                                                             (GEST ) GENSET
                                                                                                                                                                                                                                                                               20-NOV-1998;
                                                                                     13-SEP-1999
                                                                                                                                                                                                                            WO9927105-A2
                                                                                                                                                                                                                                                                                                       21-NOV-1997;
                                                                                                                                                                                                                                                                                                                   04-NOV-1998;
                                                                                                                                                                                                                                                     03-JUN-1999.
                                                                                                                                                                                                                                                                                                                                                                     Griffais R;
                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAX96312;
                                                            AAX96364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                        AAX96364/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAX96312
                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAX91991-X97517 represent PCR primers used to amplify open reading frames and other nucleic acid sequences from the genome of Chlamydia pneumoniae (See AAX91990). C. pneumoniae causes respiratory disease such as pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema rodosum or pharyngitis. The polypeptides encoded by the open reading frames of the C. pneumoniae genome (see AAX34584-AAX35879) can be used in immunogenic compositions as vaccines. Vectors containing C. pneumoniae especially where the vector directs the expression of a neutralising epitope of C. pneumoniae
                                                                                                                                                                                                                                                                                                                 Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis; sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                   Gaps
nucleotides sequences can also be used as immunogenic compositions, especially where the vector directs the expression of a neutralising epitope of C. pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
ive 0; Mismatches 4; Indels
                                                                       Length 20;
                                                                                                                                                                                                                                                                                           PCR primer used to amplify an ORF of Chlamydia pneumoniae.
                                                                                                   4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20 BP; 6 A; 4 C; 6 G; 4 T; 0 U; 0 Other;
                                                   Sequence 20 BP; 4 A; 7 C; 3 G; 6 T; 0 U; 0 Other;
                                                                        Query Match
1.6%; Score 13.6; DB 1;
Best Local Similarity 80.0%; Pred. No. 4.7e+02;
Matches 16; Conservative 0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genome sequence of Chlamydia pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page 1691; Disclosure; 1912pp; English.
                                                                                                                            428 GCCCCCTGCTAGTCTAAAGC 447
                                                                                                                                            1 GCTCCCTGCTTTACTAAAGC 20
                                                                                                                                                                                                                    AAX94717 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-IB001890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97FR-00014673
98US-0107078P
                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                  Chlamydophila pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-357842/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GEST ) GENSET
                                                                                                                                                                                                                                                                      13-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                              WO9927105-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-NOV-1997;
04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                      03-JUN-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Griffais R;
                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                           AAX94717;
                                                                                                                                                                                          888888
                                                                                                                                                    qq
```

98WO-IB001890. 97FR-00014673. 98US-0107078P.

```
ò
                                        AAX91991-X97517 represent PCR primers used to amplify open reading frames and other nucleic acid sequences from the genome of Chlamydia pneumoniae causes respiratory disease such as pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent critis media, erythema nodosum or pharyngitis. The polypeptides encoded by the open reading frames of the C. pneumoniae genome (see AAY34894 - AAX3879) can be used nuclectides sequences can also be used as immunogenic compositions as vaccines. Vectors containing C. pneumoniae especially where the vector directs the expression of a neutralising epitope of C. pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis; sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                  1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; ive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCR primer used to amplify an ORF of Chlamydia pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                Sequence 20 BP; 4 A; 5 C; 7 G; 4 T; 0 U; 0 Other;
Page 1820; Disclosure; 1912pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          138 GCTTTGGGGGCTGCAGCTCC 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 GCTTTGGAAGCAGCACCTCC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAX96312 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-SEP-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 80.0
nes 16; Conservative
```

333 GIGGAGCAACTIGGIGCCAG 352

ð

Gradadcharradchdccad 20

schu568-1.rng

```
and other nucleic acid sequences from the genome of Chlamydia pneumoniae (see AAX21990). C. pneumoniae causes respiratory disease such as pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema nodosum or pharyngitis. The polypeptides encoded by the open reading frames of the C. pneumoniae genome (see AAY34884- AAY3689) can be used in immunogenic compositions as vaccines. Vectors containing C pneumoniae especially where the vector directs the expression of a neutralising epitope of C pneumoniae
                                                                                                                                                                          AAX91991-X97517 represent PCR primers used to amplify open reading frames
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New variant forms of the human parkin gene, used as source of primers and
probes for detecting susceptibility to Parkinson's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PCR primers AAA46778-79 were used to detect an insertion of the nucleotides GT between positions 321 and 322 in exon 3 of the human parkin protein gene. The specification describes a parkin gene which has genetic alterations. Cells, or transgenic animals, that express the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR primer used to detect a mutation in exon 3 of the parkin gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bouley
                                                                                                                                                                                                                                                                                                                                                                                                                                               1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, parkin protein, parkin gene, Parkinson's disease,
anti-Parkinson agent, PCR primer, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ricard S,
                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 4 A; 5 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Denefle P,
                                                                                           Genome sequence of Chlamydia pneumoniae.
                                                                                                                                    Page 1651; Disclosure; 1912pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (RHON ) RHONE-POULENC RORER SA.
(INRM ) INST NAT SANTE & RECH MEDICALE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                688 CTGCACACGCTTCGAGGTG 707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCAACACCTCTTCGAGGGG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Abbas NE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example; Page 47; 71pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98FR-00014524.
99US-0124239P.
99FR-00010140.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAA46779 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-FR002833.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 80.07
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lucking C,
                                                       WPI; 1999-357842/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-411952/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200031253-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-NOV-1998;
12-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-JUN-2000
                  Griffais R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAA46779;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Brice A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAA46779
ID AAA4
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                             AAX91991-X97517 represent PCR primers used to amplify open reading frames and other nucleic acid sequences from the genome of Chlamydia pneumoniae (see AAX91990). C. pneumoniae causes respiratory disease such as pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema nodosum or pharyngitis. The polypeptides encoded by the open reading frames of the C. pneumoniae genome (see AAY3484- AAX35879) can be used in immunogenic compositions as vaccines. Vectors containing C. pneumoniae nucleotides sequences can also be used as immunogenic compositions, so be used as immunogenic compositions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis; sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCR primer used to amplify an ORF of Chlamydia pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 4 A; 7 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                    Genome sequence of Chlamydia pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                           Page 1816; Disclosure; 1912pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         684 GGATCTGCACACCGCTTCGA 703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP.
                                                                                                                                                                                          97FR-00014673
98US-0107078P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98WO-IB001890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97FR-00014673.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0107078P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAX94206 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                   Chlamydophila pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 especially where the vect
epitope of C. pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chlamydophila pneumoniae.
                                                                                                                                                                                                                                                                                                                               WPI; 1999-357842/30
                                                                                                                                                                                                                                                  GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GEST ) GENSET
                                                                                                                                                     20-NOV-1998;
                                                                                                                                                                                          21-NOV-1997;
04-NOV-1998;
                                                                        WO9927105-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09927105-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-NOV-1998;
                                                                                                               03-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-NUT-1999
                                                                                                                                                                                                                                                                                         Griffais R;
                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAX94206;
```

RESULT 491 AAX94206/ ID AAX9

ò

ö

```
altered parkin gene are used to screen for compounds that can counter the effects of a genetic alteration in the parkin gene, or more generally for studying the properties of the parkin protein. Detection of the specified alterations is used to diagnose susceptibility to Parkinson's disease. The modified polymucleotide is also used to express the corresponding protein, which is then used to screen for potential anti-Parkinson agents
                                                                                                                                                                                              and to raise antibodies (for detecting variants of parkin protein)
          8X383838888
```

Sequence 20 BP; 7 A; 3 C; 8 G; 2 T; 0 U; 0 Other;

.. 0 Gaps . 0 Score 13.6; DB 1; Length 20; Pred. No. 4.7e+02; 0; Mismatches 4; Indels 322 GCAGAGAAGCTGTGGAGCAA 341 GCAGAGACCGTGTGGAGAAA 20 1.6%; 80.0%; Query Match
Best Local Similarity 80.0
Matches 16; Conservative ð q

ВР AAA55541 standard; DNA; 20 AAA55541; RESULT 49

TRAF2 antisense oligonucleotide ISIS# 16832. (first entry) 30-AUG-2000

Tumour necrosis factor receptor-associated factor; TRAF; human; antisense oligonucleotide; phosphorothioate; antiproliferative; anti-inflammatory; E-selectin; jun kinase; ss.

Homo sapiens

Synthetic

Synthetic

WO200020435-A1.

13-APR-2000

99WO-US023171 05-OCT-1999; 98US-00167109 06-OCT-1998;

(ISIS-) ISIS PHARM INC

Xu XS BP, Monia Cowsert LM, Baker

WPI; 2000-303732/26.

Antisense oligonucleotides targeted to nucleic acids encoding human tumor necrosis factor receptor-associated factor (TRAF), useful for treating diseases associated with TRAF expression such as inflammatory diseases.

Example 16; Page 51; 170pp; English.

The present invention relates to antisense oligonucleotides (see AAA55496 -A55757) which are targeted to nucleic acids encoding a human tumour necrosis factor receptor-associated factor (TARF). The antisense comprise at least one modified internucleotide linkage, which is a phosphorothioate linkage. The oligonucleotides also include at least one modified sugar moiety winch as a 2'-O-methoxyethy! sugar moiety. Sequences AAA55490-A55495 represent nucleotide sequences encoding human TRAF1-6. Included in the invention is a method for treating a human having a disease associated with the expression of TRAF comprising administering an antisense oligonucleotide. The reduction of jun kinase activation in cells comprises contacting the cells with an antisense oligonucleotide targeted to TRAF-6. A method for the reduction of E-cissues with an antisense oligonucleotide targeted to TRAF-6. The antisense oligonucleotide targeted to TRAF-6. The antisense oligonucleotide targeted to TRAF-6. The antisense oligonucleotide targeted to TRAF-6. The antisense oligonucleotide fargeted to TRAF-6. In the antisense oligonucleotide targeted to TRAF-7 or TRAF-6. The antisense oligonucleotide fargeted to TRAF-6. The antisense oligonucleotide fargeted to TRAF-7 or TRAF-6. The antisense oligonucleotide for the antisense oligonucleotide with cell proliferation and inflammation. The antisense oligonucleotides with cell proliferation and inflammation. The antisense oligonucleotides with cell proliferation and inflammation. The antisense oligonucleotides with cell proliferation and inflammation. The antisense oligonucleotides associated with cell proliferation and inflammation. The antisense oligonucleotides associated with cell proliferation and inflammation. The antisense oligonucleotides as a diagnostic probe for studying gene function

ö Microtubule associated protein 4; MAP4; real-time quantitative PCR; expression; microtubule; assembly; function; cytoskeleton; structural; dynamic; stabilisation; lattice; overexpression; p53; oncogene; cancer; chemotherapy; tumour; drug sensitivity; antisense; therapy; hybridisation; inhibition; research; diagnostic; ss. Gaps Human microtubule-associated protein 4 (MAP4) antisense oligo #82 . 0 Score 13.6; DB 1; Length 20; Pred. No. 4.7e+02; 0; Mismatches 4; Indels Sequence 20 BP; 2 A; 11 C; 4 G; 3 T; 0 U; 0 Other; 410 CCAGCAGGCTCTCCGGCTGC 429 CCGCCAGCCTCCACCTCC 20 BP 80.08; 1.6%; AAZ38547/c ID AAZ38547 standard; DNA; 20 (first entry) Conservative Local Similarity 22-FEB-2000 16; AAZ38547; Query Match Best Loca Matches RESULT 494 ద

16. 20 /*tag= c /mod_base= OTHER /note= "2' methoxyethyl (2'-MOE) nucleotides" /*tag= b /mod_base= OTHER /note= "2' methoxyethyl (2'-MOE) nucleotides" /mod_base= OTHER /note= "Phosphorothioate linkages" Location/Qualifiers 99US-00289368. đ 1. .20 /*tag= modified base modified base modified_base 09-APR-1999; JS5998148-A 07-DEC-1999

99US-00289368. 09-APR-1999;

E. Ackermann (ISIS-) ISIS PHARM INC Bennett CF,

WPI; 2000-052543/04.

Antisense oligonucleotides for inhibiting microtubule-associated protein 4 expression, useful in treating disorders associated with microtubule protein expression.

Example 15; Col 40; 39pp; English.

This sequence represents an antisense oligonucleotide targetted against the gene encoding human microtubule-associated protein 4 (MAR4). Inhibition of MAR4 expression was measured by determination of MAP4 mRNA levels in a variety of cell lines via real-time quantitative PCR. The cell lines used included the bladder carcinoma cell line T-24, the human lung carcinoma cell line A549, human neonatal dermal fibroblasts and human embryonic keratinocytes. Microtubule-associated proteins comprise a group of proteins that mediate microtubule assembly and function which is

present invention

ô

Gaps

```
required for cytoskeletal integrity. MAP4 is a member of the non-neuronal structural MAP family and is believed to affect microtubule dynamics by stabilising the microtubule lattice. MAP4 expression has been shown to be elevated in cells with mutant p53 oncogene expression, and is therefore linked to cancer chemotherapeutic drug sensitivity. These antisense microtubes are useful for treating animals, parktudarly humans, having or being prome to a disease or condition associated with the expression of MAP4. The oligonucleotides are also useful for research and diagnostic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAZ65654 to AAZ69578 represent human biallelic markers from the present invention, which contain a polymorphic base at position 24 of their nucleotide sequences. AAZ69579 to AAZ7440 represent amplification primers for the biallelic markers. The biallelic markers of the invention have a variety of uses: they can be used for high density mapping of the human genome, and in complex association studies and haplotyping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agents and dispostic methods, as well as the characterisation of the differential efficacious responses to and side effects from pharmaceutical agents acting on a disease as well as other treatment. N.B. The SEQ ID NOS 2852, 2913, 2974, 3035, 3096, 3157, 3227, 3297 and 3367, are not actually given a sequence in the Sequence Listing from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel biallelic markers used to construct a high density disequilibrium map of the human genome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human biallelic marker upstream amplification primer SEQ ID NO:7672.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human genome; biallelic marker; high density disequilibrium map; genomic map; haplotype; phenotype; polymorphic base; genotyping; haplotyping; hybridisation; identification; characterisation; amplification; SNP; PCR primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
                                                                                                                                                                                                                                                                                                                                                                                                                          1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                           Sequence 20 BP; 2 A; 4 C; 10 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chumakov I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 9; Page 1866; 2745pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                384 CTGCTGGCGGCCACACACAC 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCAGGCCGCCACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-IB000822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0082614P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAZ73316 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Blumenfeld M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-013267/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diagnosis; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W09954500-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-APR-1998;
23-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-OCT-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ73316;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cohen D,
                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ7316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ73316
AAZ7
       88888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
The present invention describes a learning-induced kinase, designated KKIAMRE kinase, isolated from rabbit brain tissue. KKIAMRE kinase is a cdc2-related kinase. The KKIAMRE kinase is a becade to express recombinant protein for analysis, characterisation or therapeutic use, as markers for tissues in which the protein is preferentially expressed, as molecular weight markers on Southern gels, as chromosome markers or tags, to compare endogenous DNA sequences in patients to identify potential genetic disorders, as probes to hybridise and discover onvol related sequences, as a source of PCR primers, and as an antigen to induce anti-DNA antibodies. The polypeptides can be used in assay to discover biological activity, to raise antibodies, as tissue markers, and to isolate correlative receptors or ligands. The polymucleotides may also be used for gene therapy for the treatment of disorders which are mediated by KKLAMRE kinase. The present sequence represents a PCR primer for rabbit neurofilament-L (NP-L), which is used in an example from the
                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel learning induced kinase polynucleotides and polypeptides, useful for the analysis of learning and memory, and for gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                           Rabbit; KKIAMRB kinase; learning-induced kinase; learning; memory; cdc2-related kinase; brain; gene therapy; genetic disorder; detection; identification; PCR primer; ss.
                                                                                                          Gaps
                                                                                                          .
0
                                                              Score 13.6; DB 1; Length 20; Pred. No. 4.7e+02; 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                           Rabbit neurofilament-L (NF-L) PCR primer SEQ ID NO:8.
                                  Seguence 20 BP; 8 A; 3 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 7 A; 5 C; 6 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64pp; English.
                                                                                                                                          448 CAGATGCCTTCCAGGAAGAG 467
                                                                                                                                                                            1 cagargrafrccagraaag 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (UYSC-) UNIV SOUTHERN CALIFORNIA.
                                                                                                                                                                                                                                                                   AAA29751 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0102906P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sun W;
                                                                      1.6%;
                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                            Query Match
Best Local Similarity 80.0°
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oryctolagus cuniculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gomi H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-328932/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 7; Page 38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200020567-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Thompson RF,
                                                                                                                                                                                                                                                                                                                                         15-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-APR-2000
                                                                                                                                                                                                                                                                                                       AAA29751;
                                                                                                                                                                                                                                 RESULT 496
AAA29751/c
S X 8
                                                                                                                                            à
                                                                                                                                                                          셤
```

ö

Gaps

. 0

1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; ve 0; Mismatches 4; Indels

Query Match Best Local Similarity 80.0%; Matches 16; Conservative

466 AGCTCCAGGAACTTGGCATT 485

ò

Pyruvate carboxylase, expression, amino acid biosynthesis, lysine, glutamic acid, oxaloacetate, fermentation, biosynthesis, primer; ss.

WO200039305-A1.

Synthetic.

06-JUL-2000.

Sequencing primer for pyruvate carboxylase of C. glutamicum

BP.

20

AAA47539 standard; DNA;

20-0CT-2000

AAA47539;

1 CCATATTCTCACCATCCTC 20

```
20 ATCTCCAGGGTCTTGGCCTT 1
                                                                                                                                                                        Query Match
Best Local Similarity
            AAA98742 standard;
                                                 DE19910912-A1
                                             Homo sapiens.
                                                           11-MAR-1999;
                                                                11-MAR-1999;
                                                                                                                                                               therapeutics
                      07-FEB-2001
                                                      21-SEP-2000
                                                                          o,
                 AAA98742;
                                                                           Fitze
       RESULT 497
          셤
```

```
RESULT 498
AAA47539
                                                                              This invention describes novel human RET proto-oncogene variants which have cytostatic activity. The proto-oncogenes are used to identify despitations to forms of disturbance or idiopathic obstipation, to determine disposition for multiple endocrine neoplasia syndrome type 2A, familial medullary thyroid gland carcinoma, central breathing regulation of disorder, in particular undine syndrome or sudden infant death. They can be used to characterize and detect homozygous variants for position 135A of RET proto-oncogene, optionally with other genetic characteristics. Heterozygous variants, e.g. containing a variants in the cysteine rich region of RET (i.e. position 1825) and at position 135A, can be continued a variant of in the cysteine rich identified. The sequence variants can be used for development of therapeutics, sepecially new classes of therapeutics, targeted to the containing or promoter and characteristics or individually optimize therapy or intervention targeted to the Ret receptor tyrosine kinase. The sequences can be used to construct vectors, in particular to develop pharmaceutically relevant agents and for develop in vitro, preferably in cell culture, and in vivo, transgenic confidences in vitro, preferably in cell culture, and in vivo, transgenic animals and teet systems; for expression of individual forms of the human RET proto-oncogene, where the test system is used to look at the parametric parametric confidence and general medical characteristics associated the human RET proto-oncogene and to develop and test individually specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New human RET proto-oncogene variants for determining disease disposition and tailoring specific individual therapies, for e.g. multiple endocrine neoplasia syndrome type 2A or for familial medullary thyroid gland
                                                                                                                                                                                                                             RET proto-oncogene; human; primer; cytostatic; obstipation; multiple endocrine neoplasia syndrome type 2A; undine syndrome; familial medullary thyroid gland carcinoma; sudden infant death; central breathing regulation disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; ive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20 BP; 4 A; 10 C; 0 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                               Human RET proto-oncogene primer RETE2S1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Roesner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 5; 14pp; German.
                          BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99DE-01010912
                          20
                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (UYDR ) UNIV DRESDEN TECH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Schackert HK,
                          DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-588405/56.
```

```
.
0
                                                                                                                                                                                                                                                                                                                                                                                                 The pyruvate carboxylase of Corynebacterium glutamicum can be used for producing amino acids, preferably lysine and glutamic acid in industrial fermentations and for replenishing oxaloacetate consumed for biosynthesis during growth. By incorporating the pyruvate carboxylase gene in expression vectors levels of expression can be 2 - 20 fold higher than in Corynebacterium glutamicum. Seven primers (AAA47536-42) were used to the pyruvate carboxylase ocding sequence which was inserted into cosmid IIFIPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                               Novel polynucleotides encoding Corynebacterium glutamicum pyruvate carboxylase useful for industrial fermentation processes comprises a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; a-raf; protein kinase; antisense oligonucleotide; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human a-raf kinase antisense oligonucleotide #4 (Isis #9063).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                      Willis LB
                                                                                                                                                                                                                                                                                                                                                                           Example 5; Page 29; 51pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GGCCATTAAGGATATGGCTG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  749 GGTCCTTAAGGAGATGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВР
                                              98WO-US027301.
                                                                                                                                                                                                                                                                                                                                 specific nucleotide sequence.
98WO-US027301.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA73519 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-NOV-2000 (first entry)
                                                                                                                                                                                      Sinskey AJ, Lessard PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                        (SINS/) SINSKEY A J. (LESS/) LESSARD P A. (WILL/) WILLIS L B.
                                                                                                                                                                                                                                     WPI; 2000-465746/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
wes 16; Conserv
    23-DEC-1998;
                                                 23-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAA73519;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA73519
ID AAA7
XX
AC AAA7
XX
DT 28-N
XX
DB Hume
XX
KW Hume
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
```

16; Conservative

Matches

ò

Gaps

.. 0

Σ Ϋ́υ

Vaisberg E,

Wood K,

```
The present invention relates to methods for producing human mitotic kinesin proteins which comprise a motor domain. The method involves expressing a human mitotic kinesin coding sequence in a bacterial cell and substantially purifying the protein product. The human mitotic kinesins are useful in screening assays, for generating polyclonal and monoclonal antibodies that are useful as blocking peptides and in therapeutics. In addition, the kinesins also permit drug designing are used in screening assays for compounds that modulate kinesin activity. The present sequence is a PCR primer used in the present invention to amplify the human mitotic kinesin coding sequences, which were used in the present invention
                                                                                                                                                          Producing human mitotic kinesin protein excluding Kid comprising motor domain useful in screening assays, involves expressing nucleic acid encoding the protein in bacterial cell and purifying the protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
rative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20 BP; 5 A; 5 C; 4 G; 6 T; 0 U; 0 Other;
                                                                                Sakowicz R,
                                                                                                                                                                                                                                            Example 1; Page 34; 51pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            863 TGATGAGCCCAACTCCATTG 882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 3; Page 43; 90pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGATGACTCCAACTTCAGTG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAC79506 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-APR-2000; 2000WO-US008794.
  99US-00295612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-00286904.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaarde WA,
                                          (CYTO-) CYTOKINETICS
                                                                                Ohashi C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-664982/64.
                                                                                                                      WPI; 2000-672730/65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           phosphorothicate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200059919-A1
  20-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0.7-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Monia BP,
                                                                                Berand C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAC79506;
    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                · e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a-raf is a serine-threonine-specific protein kinase and is thought to play a fundamental role in signal transduction, and cell proliferation control. The present sequence is an antisense oligonucleotide. This sequence is targeted to human a-raf gene, resulting in a-raf expression inhibition. The present sequence may be useful for treating and raf-sociated cell hyperproliferation conditions such as cancer, hyperplasias, pulmonary fibrosis, angiogenesis, pscriasis, atherosclerosis and smooth muscle cell proliferation in blood vessels egg stennosis or restenosis following angioplasty. Also, the present sequence may be useful for treating inflammatory disorders such as tissue graft rejection, endotoxin shock and glomerular nephritis
signal transduction; hyperplasia; pulmonary fibrosis; angiogenesis; psoriasis; atherosclerosis; smooth muscle cell proliferation; stenosis; restenosis; inflammatory disorder; tissue graft rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antisense oligonucleotides targeted to nucleic acid molecule encoding human raf useful for diagnosis, treatment of raf-associated cell proliferative conditions such as cancer, psoriasis or blood vessel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCR primer; human; mitotic kinesin protein; motor domain; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 5 A; 2 C; 7 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 13.6; DB 1;
Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                             endotoxin shock, glomerular nephritis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human kinase chromokinesin PCR primer #12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Col 13; 31pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   278 AAAGTIGITGAAACTIGIAG 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94US-00250856.
95WO-US007111.
96US-00756806.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ВЪ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-APR-2000; 2000WO-US010870.
                                                                                                                                                                                                                         98US-00143214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAC66605 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 80.0
Matches 16, Conservative
                                                                                                                                                                                                                                                                                                                                             (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                   Boggs RT, Monia BP;
                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-531424/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200063353-A1.
                                                                                                                                                                                                                                                                                  31-MAY-1995;
26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                       Homo sapiens
                                                                                                                                                                                                                         28-AUG-1998;
                                                                                                                                           JS6090626-A
                                                                                                                                                                                   18-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              restenosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      500
```

ô

Gaps

; 0

```
Antisense oligonucleotide; p38 mitogen activated protein kinase; MAPK; antirheumatic; antiarthritic; immunosuppressive; cardiant; heart disease; antinflammatory; autoimmune disease; rheumatoid arthritis; apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antisense compound targeted to p38 mitogen activated protein kinase inhibits protein kinase and is useful for diagnosing and treating inflammatory, autoimmune and heart disease.
Human p38beta antisense oligonucleotide SEQ ID 29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Popoff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mckay R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nero PS,
```

8

schu568-1.rng

modified base

```
This invention relates to antisense compounds 8-30 nucleobases in length targeted to the 5'-untranslated region, translational start site, translational termination region or 3'-untranslated region of a nucleic acid encoding a p38 mitogen activated protein kinase (MAPK), where the acid encoding a p38 mitogen thuman p38alpha MAPK Sequences aAC79510 represent human p38alpha MAPK Sequences and 54C79510 represent human p38alpha mapK and p38bena MAPK CDNA sequences. AAC79481 - AAC79500 and AAC79553 - AAC79570 represent human p38alpha mapK sequence and p38alpha antisense oligonucleotides, while AAC79570 represent human p38abet antisense oligonucleotides AAC79523 - AAC79571 and antisense oligonucleotides AAC79523 - AAC79573 and antisense oligonucleotides AAC79523 - AAC79573 and antisense oligonucleotides have antisheumatic; antiarthritic; immunosuppressive; cardiant and antisheumatic; antiarthritic; immunosuppressive; cardiant and antisheumatic; antiarthritic; oligonucleotides are useful for inhibiting the expression of p38 MAPK in cells or tissues. The oligonucleotides are used for treating an animal with diseases such as inflammatory or autoimmune diseases e.g. rheumatoid arthritis, or heart disease. The oligonucleotides are also useful for inhibiting inflammation or apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human, glycogen synthase kinase 3 alpha, antidiabetic, cytostatic, antisense therapy, diabetes; hyperproliferative disorder; inflammation, neurological disorder; tumour; haematopoietic disorder; infection; hyperproliferative disorder; developmental disorder; antisense; phosphorothioate backbone; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human glycogen synthase kinase 3 alpha antisense oligo ISIS #116670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
1.6%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.7e+02;
Matches 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1..20
/#tag= #
/mod base= OTHER
/note= "Phosphorothioate backbone"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 3 A; 4 C; 7 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mod_base= OTHER
/note= "Methoxyethyl residues"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              658 TTCTCATGCAGCTGAAGCTC 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 IGCICAAGCACCIGAAGCAC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= g
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            *tag= e
'mod base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAD14829 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAD14829;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 502
ADD14829
ID ADD148
XX
XX
XX
DT 01-NOV
XX
XX
DX Human,
XX
XX
Human,
XX
XX
XX
Human,
XX
XX
XX
XX
Human,
XX
XX
XX
Human,
XX
XX
Human,
XX
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
X
```

```
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to an antisense compound 8 to 30 nucleobases in length targetted to a nucleic acid encoding glycogen synthase kinase 3 alpha. The antisense compound specifically hybridises with and inhibits the expression of glycogen synthase kinase 3 alpha. The antisense compound is useful for the treatment of a diseases associated with glycogen synthase kinase 3 alpha such as diabetes, a neurological disorder. A haematopoietic disorder, a hyperproliferative disorder or a developmental disorder. The antisense compounds may also be used prophylactically to prevent or delay infection, inflammation or tumour formation. The present sequence is a phosphorothicate antisense oligonucleotide targetted to human glycogen synthase kinase 3 alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                              Antisense compound 8 to 30 nucleobasės in length comprising a compound that is targeted to a nucleic acid molecule encoding glycogen synthase kinase 3 alpha, useful for the treatment of e.g. diabetes and hyperproliferative disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human glycogen synthase kinase 3 alpha antisense oligo ISIS #116646.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
ative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 2 A; 8 C; 2 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                        'note= "Methoxyethyl residues"
                                                                                                                                                                                                                                                                                                                                                                                             Wyatt JR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 15; Page 84; 115pp; English.
                                                                                              /*tag= j
/mod_base= m5c
16. .20
/*tag= c
/mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     631 CTCAGTCCCGCTCCCTGCAA 650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CTCAGTTCCTCTCTGCTA 20
                                                                                                                                                                                                                                                                                                                                                                                             Monia BP, Mckay R, Butler MM,
                           /mod_base= m5c
                                                                     /mod_base= m5c
                                                                                                                                                                                                                   /mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAD14805/c
ID AAD14805 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                        16-JAN-2001; 2001WO-US001411.
                                                                                                                                                                                                                                                                                                                                  21-JAN-2000; 2000US-00488856.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                      /*tag= i
                                                                                                                                                                                                     /*tag= k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-442247/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
es 16; Conserv
                                                                                                                                                                                                                                               WO200152865-A1
                                        modified_base
                                                                                                                              modified base
                                                                                                                                                                                      nodified base
                                                                                   modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-2001
                                                                                                                                                                                                                                                                           26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAD14805;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
_ XXXXXXXXXX
```

Human; glycogen synthase kinase 3 alpha; antidiabetic; cytostatic;

antisense therapy, diabetes; hyperproliferative disorder; inflammation, neurological disorder; tumour; haematopoietic disorder; infection; hyperproliferative disorder; developmental disorder; antisense; phosphorothioate backbone; ss.

note = "Phosphorothicate backbone"

base= OTHER

ĸ

*tag=

Location/Qualifiers

'note= "Methoxyethyl residues"

mod_base= OTHER

..5 *tag= b

note= "Methoxyethyl residues"

/*tag= g /mod_base= m5c

mod_base= m5c

*tag=

'mod_base= m5c

Ľ

*tag=

/mod_base= m5c

*tag= i

/*tag= c /mod_base= OTHER -----hoxyet

/mod_base= m5c 16. .20

*tag= e

/mod_base= m5c

ø

*tag=

WO200152865-A1

16-JAN-2001; 2001WO-US001411.

21-JAN-2000; 2000US-00488856

(ISIS-) ISIS PHARM INC.

Wyatt JR; Butler MM, Mckay R, Monia BP,

WPI; 2001-442247/47

Antisense compound 8 to 30 nucleobases in length comprising a compound that is targeted to a nucleic acid molecule encoding glycogen synthase kinase 3 alpha, useful for the treatment of e.g. diabetes and hyperproliferative disorders.

Example 15; Page 83; 115pp; English.

The invention relates to an antisense compound 8 to 30 nucleobases in length targetted to a nucleic acid encoding glycogen synthase kinase 3 alpha. The antisense compound specifically hybridises with and inhibits the expression of glycogen synthase kinase 3 alpha. The antisense compound is useful for the treatment of a diseases associated with glycogen synthase kinase 3 alpha such as diabetes, a neurological disorder, a haematopotetic disorder, a hyberproliferative disorder or a developmental disorder. The antisense compounds may also be used prophylactically to prevent or delay infection, inflammation or tumour formation. The present sequence is a phosphorothioate antisense origonucleotide targetted to human glycogen synthase kinase 3 alpha

ö Nucleic acid detection, nucleic acid amplification, infectious disease, genetically inherited disease, PCR primer, ss. Gaps . 0 PCR primer used for detection of human necrosis factor 2 gene. Length 20; Indels Seguence 20 BP; 4 A; 6 C; 8 G; 2 T; 0 U; 0 Other; 1.6%; Score 13.6; DB 1; 80.0%; Pred. No. 4.7e+02; 0; Mismatches 204 CIGGGIICCCAGCCCICICC 223 ceecearcceaeccritize 1 AAF24576 standard; DNA; 20 BP. (LIFE-) LIFE TECHNOLOGIES INC 22-JUN-1999; 99US-0139890P. 13-JAN-2000; 2000US-0175959P. 22-JUN-2000; 2000WO-US017085. Nazarenko I, Rashtchian A; (first entry) Conservative Query Match Best Local Similarity WO200079009-A2 Homo sapiens 20-APR-2001 28-DEC-2000 20 RESULT 504 X S ઠે 유

The specification describes a composition for quantifying or detecting one or more target nucleic acids in a sample. The composition comprises one or more detectably labeled oligonucleotides, where one comprise or or more detectable labels located internally and/or at, or near the 3' and/or 5' termini and the label undergoes a detectable change in an observable property upon becoming part of a double stranded molecule. The oligonucleotides are useful for detecting or measuring the products of nucleic acid amplification reactions and in the discrimination between alleles of a given target gene. They are also useful for detecting the presence or absence, or for quantity the amount of nucleic acid molecules in a sample without the need for performing amplification or synthesis in a sample without see also useful in methods for diagnosing infectious diseases and genetically inherited diseases. PCR primers AAFV4575-82 were used in the compositions of the invention to amplify and detect the 1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; tive 0; Mismatches 4; Indels Sequence 20 BP; 4 A; 8 C; 5 G; 3 T; 0 U; 0 Other; Example 14; Page 68; 127pp; English. Query Match
Best Local Similarity 80.0
Matches 16; Conservative necrosis factor 2 gene

Composition for quantifying or detecting target nucleic acids, comprises detectably labeled oligonuclectides where the label undergoes a detectable change in an observable property upon becoming part of a double stranded molecule.

WPI; 2001-041429/05.

178 ACAGTCACAGTGGCCGGGTC 197

·.

Gaps

. 0

à

Homo sapiens US6187545-B1

13-FEB-2001.

1 ACAGCCACTGTGCCCAGGTC 20

임

```
The invention relates to antisense oligonuclectides 8-30 nuclectides in length targeted to a nucleic acid molecule encoding macrophage migration inhibitory factor (MMIF), where the antisense compound specifically hybridizes with and inhibits the expression of MMIF. The antisense nucleotides are useful for the treatment of a disease or condition associated with MMIF such as neurological, hormonal, immune, inflammatory or hyperproliferative disorder. Sequences AAH21191-268 represent chimeric antisense phosphorothioate oligonucleotides used for inhibition of human MMIF mRNA expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New antisense compound(s) are useful to inhibit a nucleic acid molecule encoding macrophage migration inhibitory factor.
                                                                                                                                                Macrophage migration inhibitory factor; MMIF; antisense; neurological; hyperproliferation; nootropic; antihormonal; immunosuppresive; human; antiinflammatory; cytostatic; ss.
                                                                                                                         Human MMIF mRNA inhibiting antisense oligo ISIS #112580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 1 A; 7 C; 8 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  559 AACAGCAGGATCCTCGCTG 578
                                                                                                                                                                                                                                                                                                                                                                                                                                 Wyatt JR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 3; Page 83; 105pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20 AGCCGCAGGGACCCACGCTG 1
                                                                                                                                                                                                                                                                                                                                 16-JAN-2001; 2001WO-US001475.
                                                                                                                                                                                                                                                                                                                                                                  20-JAN-2000; 2000US-00489869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 80.0%;
es 16; Conservative
                               20
                                                                                          17-SEP-2001 (first entry)
                               AAH23240 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Cowsert LM,
                                                                                                                                                                                                                                                                                                                                                                                                 (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-451899/48
                                                                                                                                                                                                                                                                      WO200153317-A1.
                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                      26-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                               Murray SF,
                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                              AAH23240;
RESULT 505
               8
```

ö Gaps ; 1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; ve 0; Mismatches 4; Indels

AAF62866 standard; DNA; 20 BP AAF62866; RESULT 506
AAF62866/C
ID AAF6288
XX
AC AAF628
DT 08-MAY
XX
DE Human;
XX
KW Human;
KW Human;
KW Hoosph
KW inflam

(first entry) 08-MAY-2001

Human PEPCK-cytosolic antisense oligonucleotide ISIS 108034.

Human, antiinflammatory, cytostatic, antisense gene therapy, phosphoenol pyruvate carboxykinase-cytosolic, PEPCK-cytosolic, infection; inflammation; tumour formation, phosphorothioate; ss.

The present sequence is one of a number of antisense compounds of up to phosphoenol pyruvate carboxykinase—cytosolic (PBPCK-cytosolic). The antisense compounds are useful for inhibiting the expression of percept compounds are useful for inhibiting the expression of PEPCK-cytosolic in cells or tissues. They are commonly used as research reagents and in diagnostics, e.g. to elucidate the function of particular genes. They are also useful for distinguishing between functions of various members of a biological pathway and for research use. The antisense compounds are also useful prophylactically, e.g. to prevent or delay infection, inflammation or tumour formation. The present sequence is a chimeric phosphorothioate oligonucleotide with 2'-MOE wings and a Antisense compound capable of modulating the expression of phosphoenol pyruvate carboxykinase-cytosolic, useful for preventing or delaying infection, inflammation or tumor formation. Gaps ; 0 1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.78+02; ive 0; Mismatches 4; Indels Seguence 20 BP; 3 A; 4 C; 7 G; 6 T; 0 U; 0 Other; Cowsert LM; 213 CAGCCCTCTCCAGAAGTGAC 232 CAGCACTCTGCAGAAATGCC 1 Claim 1; Col 42; 64pp; English Wyatt J, 21-JAN-2000; 2000US-00488671. 21-JAN-2000; 2000US-00488671 1 Similarity 80.0 (ISIS-) ISIS PHARM INC. Mckay R, Butler MM, WPI; 2001-190979/19 deoxy gap 20 Query Match Best Local Matches g ò

ВР AAH48905 standard; DNA; 20 RESULT 507

.. 0

AAH48905

(first entry) 12-NOV-2001

AAH48905;

Human PAH gene associated primer #38.

Neonate screening; prenatal screening; gene chip; diagnosis; phenylketonuria; maple syrup disease; galactosemia; homocysteinuria; medium-chiain acyl-Coh-dehydrogenase deficiency; biotinidase deficiency; familial hypercholesterolemia; familial defective apolipoprotein-B; cystic fibrosis; Marfan syndrome; Smith-Lemil-Opitz syndrome; androgenital syndrome; ss

Homo sapiens.

WO200153520-A2.

26-JUL-2001.

09-JAN-2001; 2001WO-EP000139

21-JAN-2000; 2000DE-01002446.

schu568-1.rng

```
(A) require a relatively small number of separate hybridization regions (about 500 for testing for 21 specified disorders), so can be used for simultaneous testing for many diseases. Testing is quick, inexpensive, reliable and more sensitive than current physiological methods. AAH48868-AAH489166 represent oligonucleotides used to illustrate the method of the
                                                                                                                                                                                                                                                                                                                              This invention describes a novel nucleotide support (A, gene chip) which carries a selection of oligonucleotides (I) that are identical, or complementary, to segments of reference sequences relevant to at least two genetically determined phenotypes. (A) are used for simultaneous diagnosis of at least two of the following diseases: phenylketonuria (maple syrup disease), galactosemia, homocysteinuria, biotinidase deficiency, medium-chain acyl-CoA-dehydrogenase deficiency, familial defective apolipoprotein. B, cystic fibrosis, Marfan syndrome, Sainh-Lemil-Opitz syndrome and androgenital syndrome. Specifically they are used in neonatal or prenatal diagnosis,
                                                                                                                                                                                      DNA chip, useful for neonatal or prenatal screening for many genetic diseases simultaneously, carries oligonucleotides complementary to phenotypically relevant reference sequences.
                                                                                                                                                                                                                                                                                      Example 1; Page 21; 101pp; German.
                                                                                           Cullen P, Seedorf U;
                                                                                                                                        WPI; 2001-457616/49.
                      (CULL/) CULLEN P. (SEED/) SEEDORF U.
```

Seguence 20 BP; 9 A; 3 C; 7 G; 1 T; 0 U; 0 Other;

; 0 1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; tive 0; Mismatches 4; Indels Local Similarity 80.0 hes 16; Conservative Query Match Best Loca Matches

.; 0

Gaps

g

AAC85328 standard; cDNA; 20 BP 29-MAR-2001 AAC85328; RESULT 508 AAC85328/c

(first entry)

CDNA primer for PARPIA/PARP2B, P2.

Human; poly(ADP-ribose) polymerase; hPARP2; oxidative stress; ARDS; inflammation; ischemic stroke; hemorrhagic shock; myocardial ischemia; mifarction; cerebral vasopsam; hemorrhagic shock; myocardial ischemia; gouty arthritis; spondylitis; Behcet's disease; sepsis; septic shock; chock syndrome; multiple organ injury syndrome; vasculitis; conjunctivitis; uveitis; thyroid-associated ophthalmopath; conjunctivitis; uveitis; thyroid-associated ophthalmopath; chonic obstructive bulmonary disease; allocasis; allergic rhinitis; whonchiectasis; pulmonary disease; allocasis; pneumonia; myocardium; bronchiectasis; pulmonary oxygen toxicity; keloid formation; brain; scar tissue formation; athultiple sclerosis; systemic lugus erythematosus; wutchimmune thyroiditis; multiple sclerosis; systemic lugus erythematosus; we dronnic glomerulomephritis; inflammatory bening election; cystic fibrosis; contact dermatitis; atopic dermatitis; psoriasis; urticaria; fever; myaldia; mentingitis; encephalitis; Sjogren's syndrome; myaldia; mentingis; encephalitis; Sjogren's syndrome; myaldia; mellitus; hypersensitivity; leukocyte dyscrasia; Type I diabetes mellitus; hypersensitivity; expressed sequence tag; EST; thermal injury; cytokine-induced toxicity; expressed sequence tag; EST;

RACE; PCR; amplify; primer; polymerase chain reaction; ss.

Synthetic.

WO200077179-A2.

21-DEC-2000

16-JUN-2000; 2000WO-US016629.

99US-0139543P. 16-JUN-1999;

(ICOS-) ICOS CORP.

Goldman PS, Mcelligott DL; Christenson E, Demaggio AJ,

WPI; 2001-025335/03.

New human poly(ADP-ribose) polymerase for treating inflammatory, neurological, cardiovascular, or neoplastic tissue growth disorders, such as, arthritis, encephalitis, myocardial ischemia, and leukocyte metastasis.

Example 3; Page 78; 129pp; English.

The sequences given in AACB5321-40 and AACB5342-51 are primers which were expression of the function of bacultovirus expression vectors for the expression of the fusion protein PARP12. This protein contains amino acids 1-66 of hPARP1 flued upstream of amino acids 230-583 of PARP2. The fusion protein coding sequence is given in AACB5341. The protein of the invention, hPARP2, causes the covalent addition of polymers of ADP-ribose to protein targets. hPARP2 activity is induced in many instances of oxidative stress or during inflammation where there is direct damage to the DNA. hPARP2 may be used to identify antagonists which may be used to treat a human having a disorder mediated by PARP2 neoplastic issue growth disorders. hPARP2 and antibodies to it, can also be used to diagnose these conditions

Sequence 20 BP; 2 A; 10 C; 3 G; 5 T; 0 U; 0 Other;

ö 1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; 4; Indels 0; Mismatches Conservative Local Similarity les 16; Conserv Query Match Matches

. 0

Gaps

788 GCGCAAACTGCAGGACTGAC 807

20 GCGGAAGCTGGAGGAGTGAC 1

g

ò

RESULT 509 AAC85327

AAC85327 standard; cDNA; 20 BP.

(first entry) 29-MAR-2001 cDNA primer for PARP1A/PARP2B, P1.

Human; poly(ADP-ribose) polymerase; hPARD2; oxidative stress; ARDS; inflammation; ischaemic stroke; hemorrhagic shock; myocardial ischemia; infarction; cerebral vasospasm; rheumatoid arthritis; osteoarthritis; gouty arthritis; spondylitis; behcet's disease; sepsis; septic shock; endotoxic shock; gram negative sepsis; gram positive sepsis; trauma; toxic shock; gram negative sepsis; gram positive sepsis; trauma; hemorrhage; conjunctivitis; uveitis; thyroid-associated ophthalmopathy; eosinophilic granuloma; asthma; chronic bronchitis; allergic rhinitis; pulmonary sarcoidosis; pleurisy; alveolitis; pneumonia; myocardium; bronchiectasis; pulmonary oxygen toxicity; keloid formation; brain; scar tissue formation, atherosclerosis, systemic lupus erythematosus; autoimmune thyroiditis; multiple sclerosis; Reynaud's syndrome;

```
Novel oligonucleotide targeting tyrosinase related protein 2 mRNA, useful in reducing resistance to anti-cancer therapies, especially in the treatment of melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention provides the protein and coding sequences of the Corymbacterium glutamicum pyruvate carboxylase protein. This is an enzyme in the anaplerotic pathway. It can be used in the replanishment exaloacetate consumed during lysine and glutamic acid production in
                                                                                                                                                                                                                                                                                                         Novel nucleic acid encoding pyruvate carboxylase from Corynebacterium glutamicum, for replenishing oxaloacetate consumed during lysine and glutamic acid production in industrial fermentations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.78+02; Live 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human, TYRP2; tyrosinase related protein 2; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human TYRP2 antisense oligonucleotide #5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antisense therapy; cancer; melanoma; ss.
                                                                                                                                                                               (MASI ) MASSACHUSETTS INST TECHNOLOGY.
                                                                                                                                                                                                                        Willis LB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          749 GGTCCTTAAGGAGATGGCAG 768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BJ;
                                                                                                                                                                                                                                                                                                                                                                                                   Example 5; Col 45; 29pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 Geccarraagarargecre 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pak
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-OCT-2000; 2000CA-02322903.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99CA-02286401.
                                                                                                                                   98US-00220081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAH27651 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                          Lessard PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kerbel RS, Ben-David Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 industrial fermentation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (KERB/) KERBEL R S.
(BEND/) BEN-DAVID Y.
(PAKB/) PAK B J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-382008/41.
                                                                                                                                                                                                                                                                  WPI; 2001-122330/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
les 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CA2322903-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-AUG-2001
      US6171833-B1
                                                                                                                                     23-DEC-1998;
                                                                                                                                                                                                                          Sinskey AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-APR-2001.
                                                09-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAH27651;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAH2765.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The sequences given in AAC85321-40 and AAC85342-51 are primers which were used in the construction of baculovirus expression vectors for the verpession of the fusion protein PARPIA/PARP2B. This protein contains amino acids 1-662 of hPARPI fused upstream of amino acids 30-583 of hPARP2. The fusion protein coding sequence is given in AAC85341. The protein of the invention, hPARP2, causes the covalent addition of polymers of ADP-ribose to protein targets. hPARP2 activity is induced in many instances of oxidative stress or during inflammation where there is direct damage to the DNA. hPARP2 may be used to identify antagonists which may be used to treat a human having a disorder mediated by PARP2 activity, such as, inflammatory, neurological, cardiovascular, or neoplastic tissue growth disorders. hPARP2 and antibodies to it, can also be used to diagnose these conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  such
graft versus host disease; allograft rejection; cystic fibrosis; chronic glomerulonephritis; inflammatory bowel disease; Crohn's disease; unicerative collitis; nerotizing enterocolitis; inflammatory dermatosis; contact dermatitis; atopic dermatitis; psoriasis; urticaria; fever; myalgia; meningitis; encephalitis; Sjogren's syndrome; hock; Type I diabetes mellitus; hypercensitivity; hyperolemic shock; thermal injury; cytokine-induced toxicity; expressed sequence tag; EST; RACE; PCR; amplify; primer; polymerase chain reaction; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New human poly(ADP-ribose) polymerase for treating inflammatory, neurological, cardiovascular, or neoplastic tissue growth disorders, as, arthritis, encephalitis, myocardial ischemia, and leukocyte metastasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pyruvate carboxylase, anaplerotic pathway, industrial fermentation, oxaloacetate, PCR primer, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Match 1.6%; Score 13.6; DB 1; Length 20; Local Similarity 80.0%; Pred. No. 4.7e+02; es 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goldman PS, Mcelligott DL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        glutamicum pyruvate carboxylase PCR primer Endfor2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 5 A; 3 C; 10 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 3; Page 78; 129pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           788 GCGCAAACTGCAGGACTGAC 807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGGAAGCTGGAGGAGTGAC 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAF32171 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Demaggio AJ,
                                                                                                                                                                                                                                                                                                                                                              16-JUN-2000; 2000WO-US016629.
                                                                                                                                                                                                                                                                                                                                                                                                       99US-0139543P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-025335/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ICOS-) ICOS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Christenson E,
                                                                                                                                                                                                                                                                      WO200077179-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-APR-2001
```

Claim 20; Page 9; 52pp; English.

Corynebacterium glutamicum.

AAF32171;

RESULT 510

엄

Query Match Best Local Si Matches 16

ö

Gaps

oŧ

16-JUN-1999;

21-DEC-2000

Synthetic.

RESULT 513

AAF63980

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ·
0
                       The present sequence is one of ten oligonucleotides that may be targeted to tyrosinase related protein 2 (TYRP2) mRNA for delivery to a patient receiving anti-cancer therapy for melanoma. The oligonucleotides can be used to treat cancer, especially melanoma. They may be used for reducing resistance to an anti-cancer therapy in melanoma cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention provides the protein and coding sequence for the Muman tankyrase2 protein. This is found in two different versions, designated TANK2-LONG and TANK2-SHORT. Tankyrase2 has polyADP-ribosylation activity and is involved in the modification of TRF1, which is a telomeze-specific binding protein. The regulation of telomere length, in which TRF1 has a role, is linked to ageing and cancer. The sequences are useful in the treatment of cancers and inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mediated by cancers,
                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, tankyrase2; TANK2; TRF1; telomere; cancer; neoplasm; aging;
inflammatory disorder; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human tankyrase2 expression plasmid PCR primer SEQ ID NO: 168.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New tankyrase2 polypeptides, useful for treating conditions poly(adenosine diphosphate-ribose) polymerase activity e.g. inflammatory and autoimmune disorders.
                                                                                                                                                                                                                                                                             1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 13.6; DB 1; Length 20;
Pred. No. 4.7e+02;
0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mcelligott DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP; 2 A; 10 C; 3 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                       Seguence 20 BP; 4 A; 3 C; 7 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Goldman PS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 7; Page 230; 242pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                879 ATTGAGGTCCTGCATGTGAG 898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGCAAACTGCAGGACTGAC 807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Argeagarcerraargraag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Christenson E, Demaggio AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-JUN-2000; 2000WO-US017827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0141582P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.6%;
ilarity 80.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAF63981 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                             16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-102896/11.
                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
es 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200100849-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SODI (-SODI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAF63981;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 512
                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAF63981/C
XX
AC AAF67
XX
AC AAF67
XX
XX
Human
XX
Human
XX
How
DE Human
XX
How
DE Human
XX
How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO How
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HOW
DO HO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
******
                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
```

20 GCGGAAGCTGGAGGAGTGAC 1

g

```
The present invention provides the protein and coding sequence for the human tankyrase2 protein. This is found in two different versions, designated TANK2-LONG and TANK2-SHORT. Tankyrase2 has polyADD-ribosylation activity and is involved in the modification of TRF1, which is a telemere-specific binding protein. The regulation of talomere length, in which TRF1 has a role, is linked to ageing and cancer. The sequences are useful in the treatment of cancers and inflammatory
                                                                                                                                                                                                                                                                                                                                                            New tankyrase2 polypeptides, useful for treating conditions mediated by poly(adenosine diphosphate-ribose) polymerase activity e.g. cancers, inflammatory and autoimmune disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                       Human, tankyrase2; TANK2; TRF1; telomere; cancer; neoplasm; aging;
inflammatory disorder; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  meiosis activating sterol; MAS; receptor; mouse; oocyte; transduction; fertility; antisense; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .,
                                                                              Human tankyrase2 expression plasmid PCR primer SEQ ID NO: 167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 13.6; DB 1; Length 20; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                           Mcelligott DL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 5 A; 3 C; 10 G; 2 T; 0 U; 0 Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                            Goldman PS,
                                                                                                                                                                                                                                                                                                                                                                                                                    Example 7; Page 230; 242pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse SAM1b sense oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               788 GCGCAAACTGCAGGACTGAC 807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 ecesaageresagasteae 20
BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP.
                                                                                                                                                                                                                                                                                                            Demaggio AJ,
                                                                                                                                                                                                                              28-JUN-2000; 2000WO-US017827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.6%;
ilarity 80.0%;
Conservative
AAF63980 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABL53529 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .20
/*tag=
                                                                                                                                                                                                                                                                                                                                      WPI; 2001-102896/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                 (ICOS-) ICOS CORP.
                                                                                                                                                                                                                                                                                                            Christenson E,
                                                                                                                                                                         WO200100849-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Key
modified_base
                                                                                                                                                                                                                                                       29-JUN-1999;
                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus.
                                                    05-APR-2001
                                                                                                                                                                                                    04-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10-JUN-2002
                         AAF63980;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SAM1b;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
```

0;

```
Hinohara A, Nakagawa R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-SEP-2000; 2000JP-00277352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABK48094 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Watarai H, Yamaguchi Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                              (NOVO ) NOVO NORDISK AS. (SCHD ) SCHERING AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (KIRI ) KIRIN BEER KK.
                                                                                                                                       Wahl P, Vissing H,
                                                                                                                                                                 WPI; 2002-257907/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200222683-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-MAR-2002.
28-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABK48094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABK48094/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXBXEXEXEX SXXXXXXXXXXXXX
В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                  The present sequence is that of a phosphorothicate sense oligonucleotide that corresponds to the Kozak sequence of SAMID mRNa. It was microin-jected into mouse cocytes where, unlike the corresponding antisense sequence (see ABL5527), it did not selective inhibition of SAMID mRNA. SAMID is a receptor of meiosis activating sterols (MAS) and is involved in the gamete maturation process induced by 3beta-hydroxy-4, dimethylcholest-8,14,24-triene (FF-MAS), specifically inducing, upon ligand activation germinal vesicle breakdown in occytes. The invention polyopebides, probes, host cell lines and antibodies, as well as methods of screening for agonists or antagonists of FF-MAS activity. These may be used to diagnose, prevent and treat diseases associated with inappropriate MAS receptor expression. The MAS receptors can be used to diagnose to prevent and treat diseases associated with
                                                                                                                                                                                                                                                    Receptors and signaling proteins of Meiotic Acting Sterols and nucleic acids, useful in modulating in gamete maturation process induced by 3beta -hydroxy-4,4-dimethylcholest-8,14,24-triene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SAMID; meiosis activating sterol; MAS; receptor; mouse; oocyte; signal transduction; fertility; antisense; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; tive 0; Mismatches 4; Indels

    .20
    *tag= a
    note= "phosphorothioate linkage"

'note= "phosphorothioate linkage"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 2 A; 7 C; 6 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mouse SAMIb antisense oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                              Example 1; Page 19; 60pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       372 cercreecercerecreec 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ccaarcccrcrcrcrcrcrccrccc
                                                                                                                                                                                                ပ်
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВÞ.
                                                                                                                                                                                                  Grondahl
                                                                                   24-AUG-2001; 2001WO-DK000558.
                                                                                                            25-AUG-2000; 2000DK-00001259.
20-AUG-2001; 2001WO-DK000550.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABL53527 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                                                                                                                                      (NOVO ) NOVO NORDISK AS. (SCHD ) SCHERING AG.
                                                                                                                                                                                                Vissing H,
                                                                                                                                                                                                                         WPI; 2002-257907/30
                             WO200216433-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200216433-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
                                                        28-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABL53527;
                                                                                                                                                                                                Wahl P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 515
```

ð g

```
The present sequence is that of a phosphorothicate antisense oligonucleotide that is complementary to the Kozak sequence of SAMID manna. It was microinjected into mouse coortes where it exhibited selective inhibition of SAMID mRNA. It are respons of meiosis activating sterols (MAS) and is involved in the gamete maturation process activating sterols (MAS) and is involved in the gamete maturation process is pecifically inducing, upon ligand activation, germinal vesicle breakdown in cocytes. The invention provides SAMID polynucleotides (including RNA antisense sequences), polypetides, probes, host cell lines and antisense sequences), polypetides, probes, host cell lines and antisense associated with inappropriate for agonists or antagonists of FF-MAS activity. These may be used to diagnose, prevent and treat receptors can be used to discover profertility and antifertility mas receptors can be used to discover profertility and antifertility
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Receptors and signaling proteins of Meiotic Acting Sterols and nucleic acids, useful in modulating in gamete maturation process induced by 3beta -hydroxy-4,4-dimethylcholest-8,14,24-triene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human, cancer; autoimmune disease; organ transplantation; infection; allergy; vaccine; dendritic cell therapy; immune response; primer; ss; dendritic cell wall membrane molecule; immunogenic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human dendritic cell wall membrane molecule-associated primer #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.78+02; tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seguence 20 BP; 5 A; 6 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1; Page 19; 60pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                372 CGICIGGCCGICCIGCIGGC 391
                                                                                                                                                                                                                                                                                                                                                              ΰ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20 cgaargecrercrecrede 1
                                                                                                                                                                                                                                                                                                                                                              Grondahl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-SEP-2001; 2001WO-JP007919.
24-AUG-2001; 2001WO-DK000558
                                                                                          25-AUG-2000; 2000DK-00001259
20-AUG-2001; 2001WO-DK000550
```

ö

Imai N;

Ehara H,

schu568-1.rng

```
.
0
                                                                                                                                                                                                                                                                                                                                 The invention relates to an isolated human dendritic cell wall membrane molecule comprising a defined amino acid sequence given in the specification, or its variant based on the amino acid sequence but with some amino acids deleted, substituted, inserted and/or added and capable of controlling immune response. The protein, variants and encoded DNAs are useful in producing antibodies and soluble molecules to separate or detect dendritic cells, and for treatment of cancer, autoimmune diseases, organ transplantation, infection and allergy, e.g. by cancer vaccines and dendritic cell therapy to control immune response through promotion or suppression of the interaction between dendritic cells and T cells. The human dendritic cells wall membrane increases expression with maturation of human dendritic cells. The present sequence represents a human dendritic cell wall membrane molecule-associated primer
                                                                            Isolated dendritic cell wall membrane, variants and their encoded DNAs, useful in producing antibodies and soluble molecules to separate or detect dendritic cells, and for treatment of cancer, autoimmune diseases and infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Isolated dendritic cell wall membrane, variants and their encoded DNAs, useful in producing antibodies and soluble molecules to separate or detect dendritic cells, and for treatment of cancer, autoimmune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to an isolated human dendritic cell wall membrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, cancer, autoimmune disease, organ transplantation, infection, allergy, vaccine, dendritic cell therapy, immune response, primer, ss, dendritic cell wall membrane molecule, immunogenic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ż
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Imai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human dendritic cell wall membrane molecule-associated primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ehara H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hinohara A, Nakagawa R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20 BP; 3 A; 6 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                          Example 6; Page 20; 68pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 6; Page 20; 68pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                400 ACACCCTGCTCCAGCAGGCT 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20 ACCCCGTGCTGCAGCAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-SEP-2001; 2001WO-JP007919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-SEP-2000; 2000JP-00277352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABK48093 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Yamaguchi Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (KIRI ) KIRIN BEER KK
                                WPI; 2002-362337/39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-362337/39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200222683-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Watarai H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABK48093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABK48093
XX ABK48093
XX ABK4809
XX ABK4809
XX Human c
XX Human;
XW Alleray;
XW Alleray;
XW Alleray;
XW ALLERANC
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo se
XX Homo s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
molecule comprising a defined amino acid sequence given in the specification, or its variant based on the amino acid sequence but with some amino acids deleted, substituted, inserted and/or added and capable of controlling immune response. The protein, variants and encoded DNAs are useful in producing antibodies and soluble molecules to separate or detect dendrific cells, and for treatment of cancer, autoimmune diseases, organ transplantation, infection and allergy, e.g. by cancer vaccines and dendritic cell therapy to control immune response through promotion or human dendritic cell wall membrane increases expression with maturation of human dendritic cells. The present sequence represents a human confined to the present sequence represents a human control or the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to novel pyruvate carboxylase proteins and polymuclochides encoding such proteins. Sequences of the invention are important anaplerotic enzymes for replenishing oxaloacetate consumed for biosynthesis during growth, or lysine and glutamic acid production in industrial fermentation. The present DNA sequence is a primer which is used to obtain C. glutamicum pyruvate carboxylase gene. This primer is used in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Endfor2 primer used to obtain C. glutamicum pyruvate carboxylase gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel pyruvate carboxylase polypeptide, useful for replenishing oxaloacetate consumed for biosynthesis during growth, or lysine and glutamic acid production in industrial fermentation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pyruvate carboxylase; anaplerotic enzyme; industrial fermentation; oxaloacetate; growth; enzyme; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 1.6%; Score 13.6; DB 1; Length 20; Best Local Similarity 80.0%; Pred. No. 4.7e+02; Matches 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
1.6%; Score 13.6; DB 1; Length 20;
Best Local Similarity 60.0%; Pred. No. 4.7e+02;
Matches 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                             dendritic cell wall membrane molecule-associated primer
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 4 A; 7 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Willis LB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      400 ACACCCTGCTCCAGCAGGCT 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ARCH ) ARCHER-DANIELS MIDLAND CO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 5; Col 43; 28pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 Accederáciaciaciación 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAD42052 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-00220081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-OCT-2000; 2000US-00677575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Corynebacterium glutamicum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lessard PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-536037/57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US6403351-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sinskey AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAD42052;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAD42052
                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

Gaps

q à

```
The present invention describes a method of arraying genome clones. The method comprises: (a) clones of the genomic libraries contained in method comprises: (a) clones of the genomic libraries contained in multiwell plates numbered for discrimination are mixed in each of the multiwell plates; (b) a primer designed based on the chromosome marker sequence is added to the mixture to carry out an amplification reaction; (c) a signal corresponding to the marker is descrede from the resultant complified product to specify the discrimination Nos. of the multiwell plates containing the clones having said marker sequence; (d) the order of the markers is changed so that the same discrimination Nos. succeed to the maximum in the specified discrimination Nos. to array the multiwell plates; (e) the clones in the multiwell plates of the specified discrimination Nos. to array the multiwell plates; (e) the clones in the mixed clones are cultured and the resultant cultures are amplified products; (h) the clones in the multiwell plates are specified from the detected result; and (i) the clones are reconstituted as the positions on the chromosome and arrayed. The microarray is useful for gene analysis. ABL42057 to ABL45322 represent represent FOR primers for human chromosome 21q221, which are represent represent for human chromosome 21q221, which are specifically claimed for use in the present invention
                                                                   chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hybridising, quantification; detection; synthesis; amplification; PCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acid detection and discrimination related primer SEQ ID No 37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; Live 0; Mismatches 4; Indels
                      Human chromosome 1p36-35 PCR primer SEQ ID NO:2142.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20 BP; 5 A; 3 C; 9 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 4; Page 46; 528pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      422 CCGCCTGCCCCTGCTAGTC 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cerecrecerecasere 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВР
                                                                                                                                                                                                                                                                            12-MAR-2001; 2001JP-00068285.
                                                                                                                                                                                                                                                                                                                           .0-MAR-2000; 2000JP-00066716.
                                                                                                                                                                                                                                                                                                                                                                      (RIKA ) RIKAGAKU KENKYUSHO.
(GENO-) GENOTEX YG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABT06694 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arraying genome clones.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-144136/19.
                                                                                                                                                                                   JP2001321190-A.
                                                                                            PCR primer; ss
                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unidentified
                                                                                                                                                                                                                                  20-NOV-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABT06694;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                   Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New antisense oligonucleotide encoding human cytohesin-1, useful for preventing or treating a disease or condition associated with cytohesin-1 expression e.g. tumor or inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to a new antisense compound, comprising 8-30 nucleobases targeted to a nucleic acid molecule encoding human cytohesin-ty specifically hybridises with, and inhibits the expression of, human cytohesin-1, a guanine nucleotide exchange protein for ARF (ADP ribosylation factor). The antisense compound may be used in a pharmaceutical composition for inhibiting the expression of cytohesin-1 in human cells or tissues, and in treating a disease or condition associated with cytohesin-1 by administering to the human the antisense compound e.g. tumour or inflammation. The antisense compound is also useful for diagnostics, therapeutics, prophylaxis and as research reagents and kits. The present sequence is an antisense oligonucleotide targeting human cytohesin-1
                                                                                                                                                                                                                                                                                                                                             Human; antisense; cytohesin-1; guanine nucleotide exchange protein; ARF;
                                                                                                                                                                                                                                                                                                     Human cytohesin-1 coding region antisense oligonucleotide, ISIS#111012.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                        ribosylation factor; inflammation; antiinflammatory; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.6%; Score 13.6; DB 1; Length 20; 30.0%; Pred. No. 4.7e+02; ve 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bennett CF, Rothlein R, Kishimoto TK, Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20 BP; 5 A; 4 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ISIS-) ISIS PHARM INC.
(BOEH ) BOEHRINGER INGELHEIM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 15; Page 80; 107pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              558 CAACAGCAGGGATCCTCGCT 577
GGTCCTTAAGGAGATGGCAG 768
                                     1 GGCCATTAAGGATATGGCTG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20 CATCAGCAGGACCCTTTCT 1
                                                                                                                                                               路
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-OCT-2001; 2001WO-US047583.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-FEB-2001; 2001US-00791243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80.08;
                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABL45098 standard; DNA; 20
                                                                                                                                                                                                                                                      06-DEC-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-APR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                                                                                                                                               ABS73919 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2002-723198/78.
                                                                                                                                                                                                                                                                                                                                                                                                    cytostatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200268584-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-SEP-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABL45098;
749
                                                                                                                                                                                                           ABS73919;
```

ABS73919/C
ABS73919/C
XX
ABS73919/C
XX
ABS739,
XX
ABS739,
XX
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
ABS739,
XX
AB

ö

Gaps

ò

RESULT 520
ABL45098/C
ID ABL450
XX
AC ABL450
XX
DT 11-APR

ò

```
The invention comprises antisense oligonucleotides which inhibit expression of the human RECQL gene. The antisense oligonucleotides of the invention are useful for modulating the expression of RECQL protein and in treating hyperproliferative disorders (e.g. cancer and conditions in treating premature againg. The antisense oligonucleotides of the invention are also useful for diagnostics, therapeutics and prophylaxis (e.g. to prevent or delay infection, inflammation or tumour formation). The present DNA sequence represents an RECQL antisense oligonucleotide of the invention. NOTE: The present DNA sequence contains a phosphorothicate backbone, nucleotides 1-5 and 16-20 are 2'-methoxyethyl (2'-MOE)
                                                                                                                                                                                                                                                             New antisense oligonucleotides targeted to a nucleic acid encoding RECQL, useful for modulating the expression of RECQL protein, or for treating a disease or condition associated with the expression of RECQL, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New conjugate probes comprising a chemical or biomolecule coupled to a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PCR; primer; ss; conjugate probe; analyte detection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mod_base= OTHER
/note== "The base is biotinylated"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 4 A; 9 C; 2 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Neisseria meningitidis DNA PCR primer #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           305 CCTGCATGGGAAAGACTGCA 324
                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3; Page 91; 138pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (APOL-) APOLLO BIOTECHNOLOGY INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           crrecarecaaacecreca 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AALS0577 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-MAR-2001; 2001US-0274177P.
23-FEB-2001; 2001US-00793807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-MAR-2002; 2002WO-US007402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                  (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Neisseria meningitidis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                 WPI; 2002-750415/81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2002-732837/79
                                                                                                                                     Watt AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200273158-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Li Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAL50577;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                     Ward DT,
                                                                                                                                                                                                                                                                                                                                                                       cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Liu Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AALSOS77/

AALSOS77/

AAC AALS

DE Neis

XX Neis

XX Neis

XX Neis

XX Neis

XX Neis

XX Neis

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco

XX Noco
       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to a composition comprising one or more nucleic acid molecules and at least one oligonucleotide, where at least a portion of the oligonucleotide is capable of hybridising with at least a portion of the nucleic acid molecule and where the oligonucleotide comprises a modified nucleotide at or near the 3'-terminal nucleotide. The various analogue oligonucleotides are useful for quantification or detection of one or more target nucleic acid molecules in a sample during nucleic acid contraction or detection of synthesis or amplification. The analogues are also useful for determining the presence or absence of one or more particular nucleotides at a specific position or positions in a target nucleic acid molecule. The analogue oligonucleotides can also be useful for synthesising or amplifying one or more nucleic acid molecules. Any mixing one or more nucleic acid molecules complementary to all or a portion of the templates or targets with the analogue oligonucleotides, and incubating the mixture to synthesise or amplify one or more nucleic acid molecules complementary to all or a portion of the templates or targets. This polynucleotide sequence represents a nucleic acid detection and discrimination related PCR primer of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; antisense therapy; ss; RECQL; hyperproliferative disorder; cancer; premature ageing; infection; inflammation; tumour formation; 2'-MOE; antisense oligonucleotide; phosphorothioate backbone; 2'-methoxyethyl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Composition comprising nucleic acid molecules and a oligonucleotide capable of hybridizing with a portion of nucleic acid, and comprises a modified nucleotide at or near the 3'-terminal nucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                       Darfler M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.6%; Score 13.6; DB 1; Length 20; 0.0%; Pred. No. 4.7e+02; ve 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                       Solus J, Pires RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20 BP; 4 A; 8 C; 5 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human RECQL gene antisense oligonucleotide #42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 1; Page 116; 307pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  178 ACAGTCACAGTGGCCGGGTC 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 AcAgccacrererecccagere 20
                                                                                                                                                                                                     27-DEC-2000; 2000US-00748146.
23-OCT-2001; 2001US-0330468P.
                                                                                                                                     27-DEC-2001; 2001WO-US050460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-FEB-2002; 2002WO-US005225.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80.08;
                                                                                                                                                                                                                                                                                                                                                                   Rashtchian A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           861/c
ABT12861 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                       (INVI-) INVITROGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                       Astatke M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2002-627370/67.
       WO200257479-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200268590-A2
                                                                                                                                                                                                                                                                                                                                                                   Nazarenko I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                       Gebeyehu G,
                                                                  25-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABT12861;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABT12861,
```

.

```
ö
                                                                                     sensor comprising a chemical or biomolecule coupled to a dial-containing polymer, a linear or branched polysaccharide, a polymuclectide having a bydroxyl group vicinal to a phosphodiester linkage, or to a polymer selected from RNA, poly(T), phosphodiester linkage, or to a polymer selected from RNA, poly(T), poly(U) and poly(A). The conjugate probes are useful in industrial, enronmental, biomedical and biotechnology fields. Conjugate probes may be used in analytical or diagnostic applications, and in detecting analytes in a solution, gas or solid phase. The cornjugate probes may further be used to detect binding of a molecular structure to the signal path, to identify secondary binding, and to generate a standard curve or titration curve that would be used analyte or ligand. The present DNA sequence represents a Neisseria meningitidis DNA PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
ໝ
                                                                        invention comprises a conjugate probe for detecting analytes, with a sor comprising a chemical or biomolecule coupled to a diol-containing
useful for detecting analytes in a solution, or for detecting inorganic, or environmental particles in an analyte.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protease; murine; gene therapy; screening; diagnosis; capn12;
                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New calpain protein 12 with cysteine protease activity, useful for treating specific deficiency disorders.
                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                    Length 20;
                                                                                                                                                                                                                                                                                                                                                                   4; Indels
                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 6 A; 5 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                   Score 13.6; DB 1;
Pred. No. 4.7e+02;
0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Murine capn12 exon 5 splice acceptor site.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         location/Qualifiers
                                              7; Page 48; 60pp; English
                                                                                                                                                                                                                                                                                                                                                                                                 522 TTTGGGAGTCAACGCCCTCT 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 2c; 36pp; German.
                                                                                                                                                                                                                                                                                                                                                                   ·,
                                                                                                                                                                                                                                                                                                                                                                                                                   20 TTTGGAAGACTACGCCGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-JUN-2000; 2000DE-01031932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-JUN-2000; 2000DE-01031932
                                                                                                                                                                                                                                                                                                                                        1.6%;
                                                                                                                                                                                                                                                                                                                                                   80.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABA99793 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /*tag= a
/number= 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11. .20
/*tag= b
/number=
                                                                                                                                                                                                                                                                                                                                    Query Match 1.6
Best Local Similarity 80.0
Matches 16, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-115441/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (BADI ) BASF AG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DE10031932-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABA99793;
                                                Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Calpain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         intron
```

This invention describes a novel murine calpain protease 12 (caph12). The calpain protease of the invention, related proteins and nucleic acid that encodes it, are useful for treatment (including gene therapy) of diseases

```
ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; mouse; Zmax1; HBM; high bone mass gene; lipid regulation; stroke; lipid-associated condition; arteriosclerosis; cardiovascular disease; ss; osteoporosis; atherosclerosis; diabetic atherosclerosis; plaque build-up; neurovascular condition; wound healing; gene therapy; PCR primer; probe; bone development disorder; antiarteriosclerotic; cardiovascular; osteopathic; cerebroprotective.
                        raise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lipid regulation comprising identifying a molecule that binds to or inhibits binding of a molecule to high bone mass (HBM) or its wild type gene, Zmax1. Compounds identified by the method are useful for treating, diagnosing, preventing or screening for normal and abnormal lipid-associated conditions, including arteriosclerosis, cardiovascular disease, trook, and osteoporosis. The compounds may also be used in the treatment or prevention of diabetic atherosclerosis, neurovascular conditions caused by plaque build-up, poor circulation due to plaque build-up, most of methods may be used in elevatory, pharmaccutical development, and diagnostic assays for bone development disorders. Molecules identified by comparison of Zmax1 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to a method for identifying a molecule involved in
associated with insufficient expression of the calpain protease. The protein is also used to screen for calpain protein effectors and to raspecific immunoglobulins (Ig) useful for diagnosis. Also the polymucleotide encoding capnil is useful, e.g. as primers and probes, diagnosis of diseases, or predsipposition to them, and for recombinant production of capnil. This sequence represents the murine calpain 12, capnil splice acceptor site described in the disclosure of the
                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Identifying molecules involved in lipid regulation, useful for diagnosing, treating or preventing e.g., arteriosclerosis, comprises identifying a molecule that binds to high bone mass gene or its corresponding wild type gene.
                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                      4; Indels
                                                                                                                                                                           Sequence 20 BP; 4 A; 8 C; 5 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Johnson ML;
                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human Zmax1 cDNA reverse PCR primer #75.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENOME THERAPEUTICS CORP. UNIV CREIGHTON SCHOOL MEDICINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 39; 409pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Little RD, Recker RR,
                                                                                                                                                                                                                                                                                           GCTCCAGCAGGCTCTCCGGC 426
                                                                                                                                                                                                                                                                                                                                1 GCTCCAACAGGCTCCATGGC 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-MAY-2001; 2001WO-US016946.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAY-2000; 2000US-00578900.
                                                                                                                                                                                                                                                                                                                                                                                                               :988/c
ABK22988 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-097784/13.
                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200192891-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Carulli JP,
                                                                                                                                                                                                                                                    16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-DEC-2001.
                                                                                                                                        invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABK22988;
                                                                                                                                                                                                                  Query Match
Best Local S
                                                                                                                                                                                                                                                                                           407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UYCR-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GENO-)
                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                               ABK22988,
    8888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                             ð
```

```
.
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Heparotrophic, immunomodulatory, cytostatic, antiinflammatory, hepatitis, haemostatic; BH3 interacting domain death agonist; liver disease; haemaropotatic disorder, developmental disorder; immunological disorder; hyperproliferative disorder; apoptosis; human; chimeric; 2'-methoxyethyl; 2'-MOB; phosphorothioate backbone; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to a compound 8 to 50 nucleotides in length targeted to a nucleic acid molecule encoding a BH3 interacting domain death agonist, where the compound specifically hybridises with and inhibits the expression of the BH3 interacting domain death agonist. The compound of the invention is useful for inhibiting the expression of the BH3 interacting and animal having a disease or condition associated with the BH3 interacting domain death agonist, e.g. associated with the BH3 interacting domain death agonist, e.g. developmental thematopoletic disorder, hyperproliferative disorder, e.g. developmental disorder, immunological disorder, or a disease or condition of the liver e.g., hepatitis, or a condition associated with apoptosis. The compound is useful for diagnostics, therapeutics, prophylaxis and as research reagents and kits. This polynucleotide sequence represents an antisense oligonucleotide inhibitor of the DNA from human BH3 interacting domain
HBM systems can be used as surrogate markers in pharmaceutical development, in diagnosis of human or animal bone diseases, and in the treatment of bone diseases. SARZ2776-ABK23411 represent CDNA molecules encoding human Zmax1 and HBM, and PCR primers, probes, linkers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel antisense compound targeted to nucleic acid molecule encoding the BH3 interacting domain death agonist, useful for treating animals with diseases associated with BH3 interacting domain death agonist, e.g.
                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human BH3 interacting domain death mRNA agonist inhibitor SEQ ID 39.
                                                                                                                                                                                                ö
                                                                                                                                                          20;
                                                                                                                                                                                                4; Indels
                                                                                                                                                      1.6%; Score 13.6; DB 1; Length 80.0%; Pred. No. 4.7e+02;
                                                                                                                   Sequence 20 BP; 3 A; 4 C; 8 G; 5 T; 0 U; 0 Other
                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                       546 GACTCTGTAGCCCAACAGCA 565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 3; Page 86; 171pp; English.
                                                                                                                                                                                                                                                                          20 GACTCTGACTCCCAGCAGCA 1
                                                                                                                                                                                                                                                                                                                                                                           ВЪ.
                                                                                and adapters of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-SEP-2000; 2000US-00657346.
07-MAR-2001; 2001US-00800631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-AUG-2001; 2001WO-US027316.
                                                                                                                                                                                                                                                                                                                                                                           AAL38196 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                          Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-393838/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200220547-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hepatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                  AAL38196;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zhang H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                                                                      AAL38196
                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                             88333333
                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                         à
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to novel antisense oligonucleotides which are targetted to nucleic acids encoding human raf proteins and capable of inhibiting raf expression. The invention also relates to methods of inhibiting hyperproliferation of calls which involves contacting the hyperproliferation of calls which involves contacting the hyperproliferating cells with a therapeutically effective amount of an oligonucleotide of the invention. The method is useful for treating cancer, angiogenesis or neovascularisation, especially ocular angiogenesis or neovascularisation. The present DNA sequence is an
death agonist RNA of the invention. NOTE: This sequence is a chimeric oligonucleotide 20 nucleotides in length, which is flanked on both sides by five-nucleotide 'wings'. The wings are composed of 2'-methoxyethyl (2'-MCE) nucleotides. The internucleoside (backbone) linkages are phosphorothioate (P=S) throughout the oligonucleotide. (Updated on 29-AUG-2003 to standardise OS field)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human, raf, hyperproliferation; neovascularisation, ocular angiogenesis; therapy, cancer; cytostatic; anti-angiogenic; vascular; ophthalmological; antisense; phosphorothioate backbone; A-raf kinase; ss.
                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Treating cancer, angiogenesis or neovascularization by administering antisense oligonucleotides targeted to human raf sequences.
                                                                                                                                                                                    .;
0
                                                                                                                                               1.6%; Score 13.6; DB 1; Length 20;
llarity 80.0%; Pred. No. 4.7e+02;
Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                      Human A-raf kinase antisense oligonucleotide ISIS #9063.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "Phosphorothicate backbone"
                                                                                                                     Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                     827 TGCTGAAGCTGGTACCAGAA 846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Col 15; 41pp; English.
                                                                                                                                                                                                                                                     recedadecrerrercada 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94US-00250856.
95WO-US007111.
96US-00756806.
97US-00888982.
98WO-US013961.
                                                                                                                                                                                                                                                                                                                                       AAD44744 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-00143214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-00506073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mod base=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ø
                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-597918/64.
                                                                                                                                                 Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-MAY-1994;
31-MAY-1995;
26-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US6410518-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SISI (-SISI)
                                                                                                                                                                                                                                                                                                                                                                                                      13-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-JUL-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                                     AAD44744;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Monia BP;
                                                                                                                                                                                                                                                                                                      RESULT 527
                                                                                                                                                                                                                                                                                                                         AAD44744
       888888888
                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                   g
```

(first entry)

```
Cytohesin-1; CT1; inhibit; cytostatic; antiinflammatory; cytostatic; anti-infective; antisense gene therapy; infection; inflammation; tumour;
                                                                                                                                              Human cytohesin-1 mRNA levels inhibitor #24.
 CCCATGAGCAGGAATCCTTG 20
                                                                                                                                                                                                                                                                                                                                      30-OCT-2000; 2000US-00702246.
                                                                                                                                                                                                                                                                                                             30-OCT-2000; 2000US-00702246.
                                                                   ABQ66455 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                 (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                    human; ss; inhibitor
                                                                                                                                                                                                                                                         JS6383809-B1
                                                                                                                                                                                                                                                                                                                                                                                            Bennett CF,
                                                                                                                      22-AUG-2002
                                                                                                                                                                                                                                                                                   07-MAY-2002.
                                                                                                                                                                                                                               Synthetic.
                                                                                            ABQ66455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             530
                                         RESULT 529
                                                      ABQ66455,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABS68903
                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to a new antisense compound targeted to human glioma-associated oncogene-2. The invention is useful for inhibiting the expression of human glioma-associated oncogene-2 in cells or issues. The invention is also is useful for treatment of diseases associated with human glioma-associated oncogene-2. The invention is further useful for disappositics, therapeutics, prophylaxis, as research reagents and kits, for distinguishing functions of various members of a biological pathway, and in antisense gene therapy. The invention is also useful prophylactically, e.g., to prevent or delay infection, inflammation or tumour formation. The present nucleic acid sequence represents an oligonucleotide that was used in the methods of the invention to inhibit human glioma-associated oncogene-2
                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel antisense compound that hybridizes and inhibits nucleic acid encoding human glioma-associated oncogene-2, useful for treatment of diseases associated with human glioma-associated oncogene-2.
                                                                                                                                                                                                                                                                                                          Human, glioma-associated oncogene-2; antisense compound; infection; finflammation; tumour formation; antinfinflammatory; antitumour; inhibitor of human glioma-associated oncogene-2 expression; antisense gene therapy; phosphorothioate; ss.
                                                                               .
0
                                                    Length 20;
antisense oligonucleotide targetted to human A-raf kinase
                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 5 A; 6 C; 5 G; 4 T; 0 U; 0 Other;
                         Sequence 20 BP; 5 A; 2 C; 7 G; 6 T; 0 U; 0 Other;
                                                    Score 13.6; DB 1;
Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                   Chimeric phosphorotioate oligonucleotide #30.
                                                              Local Similarity 80.0%; Pred. No. 4.7e es 16; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 15; Col 45; 43pp; English.
                                                                                                        278 AAAGTTGTTGAAACTTGTAG 297
                                                                                                                                   1 AATGCTGGTGGAACTTGTAG 20
                                                                                                                                                                                                      ВР.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JUL-2001; 2001US-00907843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-JUL-2001; 2001US-00907843
                                                    1.6%;
                                                                                                                                                                                                    ABS73449 standard; DNA; 20
                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bennett CF, Freier SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-697096/75.
                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                        03-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                   US6440739-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-AUG-2002.
                                                                                                                                                                                                                                                                                                                                                                                                           Chimeric.
                                                                                                                                                                                                                              ABS73449;
                                                    Query Match
                                                                                                                                                                           RESULT 528
                                                                   Best Loca
Matches
                                                                                                                                                                                        ABS73449
                                                                                                                                                                                                    SXS
                                                                                                        8
                                                                                                                                셤
```

Cowsert LM;

```
The invention relates to a novel antisense compound of 16-30 nucleotides targeted to any of 71 specified regions of the sequence that encodes human cytohesin-1 (CTI), where the compound hybridises and inhibits expression of human CTI. The compound of the invention has antiinflammatory, cytostatic, and anti-infective activity. The antisense compounds may have a use in antisense gene therapy. The antisense compounds are useful for treating or preventing disorders associated with expression of human CTI, e.g. infections, inflammation and tumours, and as research and diagnostic reagents. Sequences ABG66412-ABG6651 represent chimeric phosphorothicate oligonucleotides, with 2-MOE wings and a deoxy gap. The claimed sequences inhibit production of cytohesin-1
                                                        New antisense compounds directed against human cytohesin-1, useful for treating and preventing infection, inflammation and tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human RecQ protein-like 4 (RECQL4) DNA antisense oligonucleotide #46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human, RecQ protein-like 4, RECQL4, ss, chromosome 8q24, infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.6%; Score 13.6; DB 1; Length 20; Similarity 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 5 A; 4 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               558 CAACAGCAGGGATCCTCGCT 577
                                                                                                                                                    Claim 14; Col 41; 40pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATCAGCAGGACCCTTTCT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABS68903 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
WPI; 2002-478385/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S:
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABS68903;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      XXEXEXEX R
```

ö

Gaps

. 0

Query Match 1.6%; Score 13.6; DB 1; Length 20; Best Local Similarity 80.0%; Pred. No. 4.7e+02; Matches 16; Conservative 0; Mismatches 4; Indels

556 CCCAACAGCAGGGATCCTCG 575

ö

Fri

schu568-1.rng

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New antisense compounds targeted to nucleic acids encoding RecQ protein-
like 4, useful for modulating expression of the nucleic acid and treating
diseases associated with expression of the nucleic acid in humans.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to a compound targeted to specific nucleobases of RecQ protein-like 4 (RECQL4) and which hybridises and inhibits the expression of RECQL4. The compound is useful for inhibiting the expression of RECQL4. The compound is useful for treating an animal, particularly a human suspected of having or being prone to a disease or condition associated with expression of RECQL4. The compound is useful for diagnostics, therapeutics and as a research reagent, e.g. prophylactically to prevent or delay infection, inflammation or tumour formation. This sequence represents an antisense oligonucleotide used in inhibition of human RECQL4 expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human, K-ras, PCR primer, probe, capture probe, mutation detection, ligase detection reaction; LDR, p53; BRCA1, BRCA2; infectious disease, infection; 21 hydroxylase deficiency, Turner Syndrome, obesity, cancer, oncogene, tumour suppressor; human papillomavirus; forensic; environmental monitoring; food industry; feed industry; ss.
inflammation; tumour formation; cancer; cytostatic; antiinflammatory; antimicrobial; antisense therapy; antisense oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 4 A; 9 C; 5 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Capture oligonucleptide Zip ID#630 oligo #9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         509 GGCCAGTTTGGCATTTGGGA 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 14; Col 45; 45pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 GGCCACGGTGGCCTTTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABI93543 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                     23-FEB-2001; 2001US-00792594.
                                                                                                                                                                                                                                                                                                                                                                            23-FEB-2001; 2001US-00792594.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-APR-2001; 2001WO-US010958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14-APR-2000; 2000US-0197271P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                            (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-689941/74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Watt AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200179548-A2
                                                                                                                                                                         US6436706-B1.
                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LS-FEB-2002
                                                                                                                                                                                                                                             20-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABI93543;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AB193543

ID AB19

XX XX XX AB19

DT 15-F

XX XX BH19

XX XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX BH19

XX AH19

       ઠે
```

```
The present invention describes a method (MI) for designing capture oligonucleotide probes (I) for use on a support to which complementary oligonucleotide probes (II) will hybridise with little mismatch, where (I) have melting temperatures within a narrow range. The method is useful for detecting infectious diseases caused by bacterial infectious agents e.g. Salmonella, Listeria mmoncytogenes and Hamophilus influenza, fungal infectious agents e.g. Cryptococcus neoformans, Caddida albicans and Sapergillus funigatus, viruses e.g. T-cell lymphocytotrophis cirus, Bestein-Barr virus and polio virus, and parasitic infectious agents selected from Onchoverva volvulus, Entamoba histolytica and Dracumculus medinesis. The method is also useful for detecting genetic diseases such as 21 hydroxylase deficiency, Turner Syndrome and obserity defects.

Cometring cancer involving oncogenes, tumour suppressor genes, or genes involved in DNA amplification, replication, recombination or repair, the cancer is specifically associated with a gene selected from BRCAH gene, psi gene, human papillomavirus types 16 and 18 and liver cancers. The method is also used for environmental monitoring, forensics and the food and feed industry, detecting comprises scanning celectron microscope and infrared microscope) the support at the parentcular sites and identifying if ligation of the oligonucleotide properce or absence of the target nucleotide sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone, antinflammatory; antiallergic, antiasthmatic; hypotensive, immunosuppressive, cytostatic; gene therapy, antisense gene therapy, respiratory; lung, adenosine sensitivity, adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.
                                                                                                                  Designing capture oligonucleotide probes for use on a support to which complementary oligonucleotides hybridize with little mismatch.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 13.6; DB 1; Length 20;
Pred. No. 4.7e+02;
0; Mismatches 4; Indels
                                      Kliman R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 4 A; 7 C; 5 G; 4 T; 0 U; 0 Other;
                                      Favis R,
                                                                                                                                                                                Example 5; Fig 29; 300pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCTCCATACTTGCACCAT 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCTGCGTACATGCGCCAT 20
                                    Gerry NP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human oligonucleotide sequence.
(CORR ) CORNELL RES FOUND INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABZ89451 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.6%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-APR-2002; 2002WO-US013135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-APR-2001; 2001US-0286137P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                      Barany F, Zirvi M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200285308-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-OCT-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABZ89451;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABZ8945
    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d
```

```
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonuclectide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions; 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubjquinone. A composition of the invention has antiinflammatory, antiallergic, antiathmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing or depleting levels of cof, or reducing sensitivity to adenosine, reducing or depleting levels or receptor, producing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing levels of ubguinone or lung surfactant in a subject's fissue, or treating bronchoconstriction, note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO at fip. wipo.int/pub/published_pot_sequences
                                                                                                                                                                                                Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
                                                                                                                                                                                                                                                                                                                           Disclosure, SEQ ID NO 4693; 872pp; English.
                                                                       Li Y, Sandrasagra A,
Tang L, Shahabuddin
                     (EPIG-) EPIGENESIS PHARM INC
                                                                                                                                                    WPI; 2003-229219/22
                                                                       Nyce JW, ]
Miller S,
```

Sequence 20 BP; 1 A; 4 C; 7 G; 8 T; 0 U; 0 Other;

.; 0 1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; ative 0; Mismatches 4; Indels Query Match Best Local Similarity 80.0°

507 TIGGCCAGITIGGCATITGG 526 rrescerririoscascres 20 В

ABZ86662 standard; DNA; 20 17-OCT-2003 ABZ86662;

BP.

Human oligonucleotide sequence (first entry)

Human, antisense; lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone; antinflammatory; antiallergic; antisathmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

Homo sapiens

WO200285308-A2.

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC

Aguilar D;

Pabalan J,

Katz E,

ñ Aguilar Pabalan J, Sandrasagra A, Katz E, Li Y, Sa Tang L, Miller S, Nyce JW,

WPI; 2003-229219/22

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone.

Claim 15; SEQ ID NO 1904; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligomuclectide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 mucleocides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubjudinone. A composition of the invention has mutinflammatory, antiallergic, antiasthmatic, hypotensisty an antiinflammatory, antiallergic, antiasthmatic, hypotensive, in antiinflammatory and cytostatic activity. The composition may have a use in antisectory, lung or malignant disease or condition, as lso preventing a respiratory, lung or malignant disease or condition, as lso or expending sensitivity to adenosine, reducing or depleting levels of antiinflammatory steroid in a subject, for reducing or depleting levels of adenosine receptor, producing bronchodiation, increasing levels of ubjudinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung alta for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences

Sequence 20 BP; 4 A; 7 C; 5 G; 4 T; 0 U; 0 Other;

0; Gaps 0, 1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; tive 0; Mismatches 4; Indels 1 Similarity 80.0 16; Conservative Query Match Best Local S: Matches 16

엄

ð

ö

Gaps

Human oligonucleotide sequence. BP ABZ85925 standard; DNA; 20 (first entry) 17-OCT-2003 ABZ85925; RESULT 534 ABZ85925

Human, antisense; lung dysfunction; nasal airway dysfunction; antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

Homo sapiens.

WO200285308-A2.

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC

```
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an entiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antisense generating or malignant disease or condition, also of or reducing sensitivity to adenosine, reducing levels of adenosine receptor, producing bronchodilation, increasing levels of ubiquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed or perfication, but was obtained in electronic format directly from WIPO
                                                                                                                                                                    Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, antisense, lung dysfunction, nasal airway dysfunction, antiinflammatory steroid, ubiquinone, antiinflammatory; antiallergic, antiasthmatic, hypotensive; immunosuppressive, cytostatic, gene therapy, antisense gene therapy, respiratory; lung, adenosine sensitivity; adenosine receptor, bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.
                                                              Katz E, Pabalan J, Aguilar D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
tive 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 20 BP; 4 A; 4 C; 6 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                   Claim 15; SEQ ID NO 1167; 872pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human ICAM oligonucleotide sequence.
                                                            Li Y, Sandrasagra A, Ka
Tang L, Shahabuddin S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           921 AGCGGGACTTTCAGGTTTTG 940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 AGGAGGACTTTCAGCTTCTG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ВP
                    (EPIG-) EPIGENESIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABZ98505 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                                                                                                               WPI; 2003-229219/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200285308-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-0CT-2003
                                                                                                                                                                                                                                            ubiquinone.
                                                            Nyce JW, 1
Miller S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABZ98505;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABZ98505
d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 6' regions within 2-10 mucleotides of inctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention of the invention of the invention of the invention of the antiinflammatory antiallergic, antisthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a immunosuppressive, and cytostatic activity. The composition may have a preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an infilammatory steroid in a subject, for reducing levels of adenosine receptor, producing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing levels of ubiquinone or lung surfactant in a subject's tissue, or a respiratory disease or condition, note: The sequence date for this patent is not represented in the printed or specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                  Pharmaceutical composition for treating ailments associated with impaired
                                                                                                                                                                                                                                                                                                                           The invention relates to a novel pharmaceutical composition, which has a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human, antisense, lung dysfunction, nasal airway dysfunction, antiinflammatory steroid, ubiquinone, antiinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive, cytostatic; gene therapy, antisense gene therapy, respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy, lung inflammation; respiratory disease; ds.
                                                                                                                                                                                         respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                          Katz E, Pabalan J, Aguilar D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 1.6%; Score 13.6; DB 1; Length 20; Best Local Similarity 80.0%; Pred. No. 4.7e+02; Matches 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 3 A; 6 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                             Disclosure; SEQ ID NO 13747; 872pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ftp.wipo.int/pub/published_pct_sequences
                                                          Li Y, Sandrasagra A, Ka
Tang L, Shahabuddin S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         596 CCGGTGGCGGGTGGACGTGG 615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 ccadreccaderedacered 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human oligonucleotide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-APR-2002; 2002WO-US013135.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABZ87473 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-OCT-2003 (first entry)
                                                                                                                           WPI; 2003-229219/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200285308-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                        ubiquinone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-OCT-2002
                                                          Nyce JW, Miller S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABZ87473;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABZ87473
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
```

0

Gaps

; 0

24-APR-2001; 2001US-0286137P.

23-APR-2002; 2002WO-US013135. 24-APR-2001; 2001US-0286137P.

0

```
Pabalan J, Aguilar D;
                                Katz E,
                              Li Y, Sandrasagra A, Ka
Tang L, Shahabuddin S;
(EPIG-) EPIGENESIS PHARM INC.
                                Nyce JW, I
Miller S,
```

WPI; 2003-229219/22

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or

Disclosure; SEQ ID NO 2715; 872pp; English

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or an all actions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunctions of second active agent comprising an artifilanmatory steeroid and ubiquinone. A composition of the invention has antiinflammatory steeroid and ubiquinone. A composition may have a immunosuppressive, and cytostatic activity. The composition may have a immunosuppressive, and cytostatic activity. The composition may have a preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiformatory steroid in a subject, for reducing levels of adenosine receptor, producing bronchodilation, increasing levels of ubiquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung surfactant in a subject's tissue, or treating bronchoconstriction, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO ftp.wipo.int/pub/published_pct_sequences

Sequence 20 BP; 4 A; 7 C; 5 G; 4 T; 0 U; 0 Other;

1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02; .ive 0; Mismatches 4; Indels 551 TGTAGCCCAACAGCAGGGAT 570 Local Similarity 80.0 es 16; Conservative Query Match Best Loca Matches

1 TGTGCCCCACCAGCAGTGAT 20

ABZ97799 standard; DNA; 20 BP 17-OCT-2003 ABZ97799 RESULT 537 ABZ97799/c

Human CCR3 oligonucleotide sequence.

Human, antisense; lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone; antinflammatory, antiallergic; antiasthmatic; pryotensive; immunosuppressive, cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

Homo sapiens

WO200285308-A2

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC

Ö Aguilar Pabalan J, Katz E, ŝ Li Y, Sandrasagra A, Tang L, Shahabuddin Nyce JW, I Miller S,

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone.

Disclosure, SEQ ID NO 13041; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligomucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an cartinflammatory seroid and ubiquinone. A composition of the invention has antiinflammatory, antiallergic, antiasthmatic, hypotensive, comparising an intisense gene therapy. The composition may have a comparison and cytostatic activity. The composition may have a comparison to preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing levels of adenosine receptor, producing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing levels of ubiquinone or lung inflammation, lung allergies, or treating bronchoconscription, lung allergies, or a respiratory disease or condition, lung inflammation, but was obtained in electronic format directly from WIPO ftp.wipo.int/pub/published_pct_sequences

Sequence 20 BP; 3 A; 5 C; 3 G; 9 T; 0 U; 0 Other;

Gaps .. 0 Query Match
1.6%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.7e+02;
Matches 16; Conservative 0; Mismatches 4; Indels

ö

826 GIGCIGAAGCIGGIACCAGA 845 20 GTGAAAAGCTGATACCAGA

d

0

Gaps

· 0

ABZ87692 standard; DNA; 20 BP 538

(first entry) 17-OCT-2003

Human oligonucleotide sequence

Human, antisense; lung dysfunction; nasal airway dysfunction; antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

WO200285308-A2.

31-OCT-2002.

23-APR-2002; 2002WO-US013135

24-APR-2001; 2001US-0286137P.

"2'-O-methoxyethyl (2'-MOE) wing"

/note= "2'-0-metho 16. .20 /*tag= c /mod_base= OTHER

modified_base

/note= "2'-O-methoxyethyl (2'-MOE) wing"

```
Mouse HSL chimeric phosphorothioate oligonucleotide SEQ ID NO:172.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mod_base= OTHER
/note= "phosphorothioate linkages"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               676 TCACAGATGGATCTGCACAC 695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 rcacaceredaacreaacac 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mod_basc= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABZ82783 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-MAY-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus.
                                                                               Nyce JW, I
Miller S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABZ82783;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 539
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       THE LEFT THE SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET OF SET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
```

0; Mismatches

```
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonuclectide antisense to the initiation codon, coding region, 5' or 3' on antisense to the stations of genes encoding a polypeptide associated with lung and/or nasal airway dysfunctions and a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antinflammatory, antiallergic, antiasthmatic, hypotensing, an antinflammatory, antiallergic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, as 1so for enhancing the prophylactic or therapeutic respiratory effect of an antinflammatory steroid in a subject, for reducing or depleting levels of of antishlammatory brombodilation, increasing levels of adenosine receptor, producing brombodilation, increasing levels of adenosine receptor, producing brombodilation, increasing levels of adenosine receptor, producing brombodilation, increasing levels of ubiquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung albert is not represented in the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                             Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone.
                                                                       Aguilar D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02;
                                                                     Pabalan J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 7 A; 6 C; 3 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                       Disclosure; SEQ ID NO 2934; 872pp; English.
                                                                       Katz E,
                                                                   Sandrasagra A, Ka
i, Shahabuddin S;
                   (EPIG-) EPIGENESIS PHARM INC.
                                                                                                                                        WPI; 2003-229219/22.
                                                                Li Y, Sa
Tang L,
```

encoding

New antisense oligonuclectides targeted against nucleic acids encod: hormone-sensitive lipase, useful for treating abnormal metabolic condition, e.g. hyperlipidemia and obesity, or a hyperproliferative

Example 17; Page 93; 167pp; English.

disorder, e.g. cancer.

Freier SM, Wyatt JR;

Watt AT,

Butler MM,

WPI; 2003-239411/23

15-JUL-2002; 2002WO-US022672 26-JUL-2001; 2001US-00915814

WO2003010139-A2

(ISIS-) ISIS PHARM INC

```
The present invention describes a compound (I) 8-50 nucleobases in length targeted to a nucleic acid molecule encoding a hormone-sensitive lipase (HSL) or a splice variant of HSL. The compound specifically hybridises with and inhibits the expression of HSL or a splice variant of HSL, or specifically hybridises with at least an 8-nucleobase portion of an active site on a nucleic acid molecule encoding HSL. (I) have anorectic, antidiabetic and cytostatic activities, and can be used in antisense therapy. (I) is useful for treating an animal, particularly human, suspected of having an abnormal metabolic condition such is obesity, hyperlipidaemia, type 2 diabetes, a hyperproliferative disorder such as cancer (e.g. pitulitary, colorectal, breast, testicular, pulmonary or epithelial cancer). (I) is also useful in modulating blood glucose epithelial cancer. (I) is also useful in modulating blood glucose animal. The present sequence represents a mouse hormone-sensitive lipase chimeric phosphorothioate antisense oligonucleotide, which is used in an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, Taqman, probe; ss, asthma, bronchial hyperresponsiveness, airway obstruction, chronic bronchial inflammation, multifactorial disease, asthma-associated gene; AAGA, allele-specific, single nucleotide polymorphism; SNP, genetic profile; gene therapy; authli distress respiratory syndrome; chronic obstructive pulmonary, chronic bronchitis; dyspnea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20 BP; 2 A; 4 C; 8 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human AAGA fluorogenic SNP probe, #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             example from the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   346 GIGCCAGCGCCAACCIGICA 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGCCAGCCACAACCTAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABX99060 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABX99060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hormone-sensitive lipase, antisense oligonucleotide, inhibitor, obesity, phosphorothicate, antidiabetic, anorectic, cytostatic, antisense therapy, abnormal metabolic condition, hyperlipidaemia, type 2 diabetes, cancer, hyperproliferative disorder, mouse, ss.
                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                 4; Indels
```

BP

Homo sapiens

ø

Д

ó

```
The invention relates to antisense compounds, compositions and methods for modulating phospholipase A2 (PLA2) group V gene expression. PLA2 is also known as calcium dependent phospholipase A2, PLA265, hVPLA2 and HPLA2-10. The antisense oligonucleotide is useful for treating an animal having a disease or conditions associated with PLA2 group V, e.g. an autoimmune disorder or an inflammatory disorder. It is also useful for modulating PLA2 group V. The antisense compounds are also useful for diagnostics, therapeutics, prophylaxis, or as research reagents or kits. The present sequence is an antisense oligonucleotide targetted to human PLA2 DNA. This sequence is used to illustrate the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New antisense oligonuclectides for modulating phospholipase A2 group V gene expression, particularly useful for treating an autoimmune disorder or an inflammatory disorder.
                                                                                                                                                                                                                                                                                          /note= "Phosphorothioate backbone; All cytidines are 5-methylcytidines"
             Human; phospholipase A2; PLA2; calcium dependent phospholipase A2;
PLA2G5; hVPLA2; HPLA2-10; therapy; autoimmune disorder; prophylaxis;
inflammatory disorder; antisense; phosphorothloate backbone; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
Live 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mod_base= OTHER
/note= "2'methoxyethyl nucleotides"
                                                                                                                                                                                                                                                                                                                                                                    /*tag= b/mod_base= OTHER
/mod_base= "2'methoxyethyl nucleotides'
16. .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 5 A; 7 C; 5 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                           Location/Qualifiers
1. .20
/*tag= a
/mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          860 TGGTGATGAGCCCAACTCCA 879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 3; Page 75; 99pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-OCT-2002; 2002WO-US034654.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-2001; 2001US-00016149.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACD42104 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag= c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-430513/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO2003038050-A2
                                                                                                                                                                                                   Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                 modified base
                                                                                                                                                                                                                                                                                                                                                  modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-SEP-2003
                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bennett CF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-MAY-2003
                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACD42104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACD42104
SAXEX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention discloses a method for determining a disease (e.g asthma) characterised by bronchial hyperresponsiveness, or the risk of developing than a trand airway obstruction or chronic bronchial inflammation. Asthma is a multifactorial disease, so discovery of the asthma susceptibility genes can identify the fundamental mechanisms behind asthma. One such gene is the asthma-associated gene, AAGA. Also disclosed is an allele-specific prolated polymuclectide probe capable of detecting a polymorphism, an isolated polymuclectide, and encoded polypeptide, which is a variant of hards associated with bronchial hyperresponsiveness and methods for pharmacogenemically selecting a therapy to be administered to an individual having asthma, comprising determining an AAGA genetic profile individual having the individual's genetic profile to an AAGA genetic profile comparing the individual's genetic profile to an AAGA genetic profile comparing the individual's genetic profile to an AAGA genetic profile comparing the individual's genetic profile to an oligonuclectide, polypeptide encoded by it, antibody to the polypeptide, or an oligonuclectide, polypeptide encoded by it, antibody to the polypeptide, or an oligonuclectide, polypeptide encoded by it, antibody to the polypeptide, or an oligonuclectide, polypeptide encoded by it, antibody to the polypeptide, or an oligonuclectide encoded by it, antibody to the polypeptide, or an oligonuclectide by bronchial hyperresponsiveness, or inflammatory syndrome, chronic obstructive pulmonary, chronic bronchitis or dyspnea. The method is useful for prognosing, diagnosing or confirming that a symptomatic subject has a genetic defect which causes or contributes to the particular disease or disorder, for ascertaining an individual's genetic profile. The sequences presented is a human AAGA single nucleotide polymorphism the sequences presented is a human AAGA single nucleotide polymorphism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Determining whether a subject has or is at risk of developing a disease characterized by bronchial hyperresponsiveness, comprises determining the expression or bioactivity level of an asthma-associated gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
1.6%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.7e+02;
Matches 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                               Bleecker ER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human PLA2 antisense oligonucleotide, ISIS 127987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 3 A; 9 C; 5 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                   (NOVS ) NOVARTIS AG.
(NOVS ) NOVARTIS ERRINDUNGEN VERW GES MBH.
(UYWA-) UNIV WAKE FOREST HEALTH SCI.
(UYGR-) RIJKSUNIV GRONINGEN.
                                                                                                                                                                                                                                                                                                                                                                               Postma DS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          510 GCCAGTTTGGCATTTGGGAG 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 3; Page 30; 70pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCGGTCTGGCACATGGGAG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP
                                                                                                                                                      15-JUL-2002; 2002WO-EP007847
                                                                                                                                                                                                      16-JUL-2001; 2001US-0305649P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACC82817 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                 Whittaker PA, Meyers DA,
                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-239359/23.
                                                       WO2003008640-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-AUG-2003
                                                                                                       30-JAN-2003
       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACC82817
```

ö

Gaps

. 0

RESULT 541

엄 à

ACC82817
ID ACC8
XX
AC ACC8
XX
DT 27-P
XX
DE Huma

/*tag= a /mod_base= OTHER /note= "Phosphorothioate linkages. All cytosines are 5-methylcytosine"

Location/Qualifiers

. .20 *tag=

Key modified_base

Homo sapiens. Synthetic.

modified base

modified base

/*tag= b /mod_base= OTHER /note= "2'-methoxyethyl (2'-MOE) nucleotides" 16. .20

Human, superoxide dismutase 1, antisense, neuroprotective, cytostatic, antiinflammatory, amyotrophic lateral sclerosis, apoptosis, hyperproliferative disorder, therapy, infection, inflammation, tumour,

Human superoxide dismutase 1 antisense inhibitor # ISIS 150455.

23-MAY-2003 (first entry)

ACC40901

```
Novel antisense oligonucleotide which is targeted to mRNA encoding human raf and which is capable of inhibiting raf expression, useful for treating or preventing hyperproliferative conditions such as cancer.
                  Human; ss; antisense; c-raf; a-raf; b-raf; protein kinase; cancer; signal transduction; cell proliferation; lung carcinoma; cytostatic; antisense gene therapy; chemotherapeutic agent; angiogenesis; hyperproliferative condition; neovascularisation; ocular angiogenesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.6%; Score 13.6; DB 1; Length 20; 30.0%; Pred. No. 4.7e+02;
Antisense oligonucleotide targeting human a-raf, ISIS9063.
                                                                                                                                                             95WO-US007111.
96US-00756806.
97US-00888982.
                                                                                                                                 25-JAN-2002; 2002US-00057550
                                                                                                                                                                                           98WO-US013961
98US-00143214
                                                                                                                                                                                                                2000US-00506073
                                                                                                                                                                                                                                                                           WPI; 2003-503332/47
                                                                                                                                                                                                                                   (MONI/) MONIA B P.
                                                                                        JS2003032607-A1
                                                                                                                                                                                           06-JUL-1998;
28-AUG-1998;
18-FEB-2000;
                                                                                                                                                             31-MAY-1995;
26-NOV-1996;
07-JUL-1997;
                                                                      Homo sapiens
                                                                                                            13-FEB-2003
                                                                                                                                                                                                                                                        Monia BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 purposes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
```

```
The invention relates to an oligomucleotide 8-50 nucleotides in length which is targeted to mRNA encoding human c-raf, a-raf or b-raf (raf is a prochin kinase playing a regulatory role in signal transduction, regulating cell proliferation and has been implicated in lung carcinoma), and which is capable of inhibiting raf expression. Also included is a competable carrier. The antisense oligomucleotide is useful for competable carrier. The antisense oligomucleotide is useful for inhibiting the expression of human raf in human cells or tissues, by contacting the human cells or tissues with the oligo. The oligo. Is also is useful for treating or preventing a disease or condition associated with the expression of raf by administering it in combination with a chemotherapeutic agent to a human or cells of the human, where the expression of raf is abnormal expression, and the condition is a hyperproliferative condition such as cancer, angiogenesis or neovascularisation (preferably ocular angiogenesis or neovascularisation). The oligo. Is also useful is to inhibiting hyperproliferation of cells. The oligos, are also useful as tools, for example for detecting and determining the role of raf expression in various cell functions and physiological processes and conditions and for anamone of the expression in the expression of the expression of the example for detecting and determining the role of raf experient means the expression of the example for detecting and determining the role of reference of the experient means and physiological processes and conditions and for discount means and physiological expression and for example for the expression and for example for the expression and for example for the expression and for example for the expression and for example for the expression and for example for the expression and for example for example for example for example for example for example for example for example for example for example for example for example for example for example for example for example for example fo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           present sequence is an antisense oligonucleotide targeting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 5 A; 2 C; 7 G; 6 T; 0 U; 0 Other;
Disclosure; Page 8; 42pp; English.
```

```
The invention relates to a compound of 8-50 nucleobases in length, targeted to a nucleic acid molecule encoding human supercxide dismutase 1. The compound specifically hybridises with and inhibits the expression of human superoxide dismutase 1 by hybridising with at least an 8-compounds of the enzyme. The activity of compounds of the invention may be described as neuroprotective, cytostatic and antiinflammatory. The mechanism of action of compounds of the invention may be described as neuroprotective, cytostatic and antiinflammatory. The mechanism of action of compounds of the invention is antisense inhibition of human superoxide dismutase 1 expression by chimeric phosphorothibate compounds of the invention are useful for inhibiting the expression of human superoxide dismutase 1 in human cells or tissues, and for treating a disease or condition associated with this enzyme (antisense therapy), especially amyotrophic lateral sclerosis, a disease or condition arising from aberrant apoptosis and a hyperproliferative disorder. It may also be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               formation. Sequences given in records ACC40880-ACC40957 represent human superoxide dismutase 1 antisense inhibitor oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel antisense compounds targeted to nucleic acids encoding human superoxide dismutase 1, for modulating expression of the dismutase and treating diseases or conditions, e.g. amyotrophic lateral sclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sed in diagnostics, therapeutics and as a research reagent, e.g. rophylactically to prevent or delay infection, inflammation or t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  not\bar{e}= "2'-methoxyethyl (2'-MOE) nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 6 A; 8 C; 2 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 15; Page 76; 107pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-JUN-2001; 2001US-00888360.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-JUN-2002; 2002WO-US019664
                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag= c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-184032/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2003000707-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bennett FC,
```

Score 13.6; DB 1; Length 20; Pred. No. 4.7e+02;

1.6%; 80.0%;

Query Match Best Local Similarity

ö

Gaps

.

Indels

0; Mismatches

80.08;

Conservative

Local Similarity nes 16; Conserv

Best Loca Matches

278 AAAGTTGTTGAAACTTGTAG 297

ACC40901/c ID ACC40901 standard; DNA; 20 XX

RESULT 543

human

.g., to prevent or delay infection, inflammation or tumour formation. The present sequence is an antisense oligonucleotide targetted to human CR DNA. This sequence is used in the exemplification of the invention

The

Sequence 20 BP; 5 A; 4 C; 7 G; 4 T; 0 U; 0 Other;

```
ន្តដូន
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to antisense compounds, compositions and methods for modulating the expression of protein kinase R (also known as PRR, perRx, interferon-induced double stranded RNA-activated pse kinase, DAI, dsI, and Pl/eIF2 alpha protein kinase). The compositions contain antisense compounds, particularly antisense oligonucleotides targetted to nucleic acids encoding PKR. The antisense compound is useful for inhibiting the expression of PKR and for modulating the process of mediated interference (RNAi) in a cell. It is useful for treating an animal having a disease or condition associated with PKR. It is also useful for diagnostics, therapeutics, prophylaxis, as research reagents and kits, for distinguishing functions of various members of biological pathway, and in antisense gene therapy. It is useful prophylactically,
0
                                                                                                                                                                                                                                Human; protein kinase R; PKR; PRKR; immunosuppressive; antiinflammatory; interferon-induced double stranded RNA-activated p68 kinase; DAI; dEI; PI/eIF2 alpha protein kinase; gene therapy; infection; tumour; antisense; phosphorothioate backbone; ss.
                                                                                                                                                                                                                                                                                                                                                                                                         /note= "Phosphorothioate backbone; All cytidine residues are 5-methylcytidines"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel antisense compound that hybridizes and inhibits nucleic acid encoding protein kinase R, useful for treating animal having disease or condition associated with protein kinase R such as an autoimmune
Gaps
.
0
Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "2'methoxyethyl nucleotides'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "2'methoxyethyl nucleotides'
 4
                                                                                                                                                                                                            Human PKR antisense oligonucleotide, ISIS 139382
Mismatches
                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                            499 TTGGAGATTTGGCCAGTTTG 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J= C
base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                 OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 3; Page 75; 61pp; English.
..
0
                                                       20 TIGGAGACTIGGGCAATGIG
                                                                                                                            BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11-SEP-2002; 2002WO-US028870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-SEP-2001; 2001US-00953611
                                                                                                                                                                                                                                                                                                                                                                                    y= a
base=
                                                                                                                            AAD55329 standard; DNA; 20
                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16. .20
/*tag= 0
 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag=
                                                                                                                                                                                                                                                                                                                                                                     1. .20
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /mod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mod
                                                                                                                                                                                                                                                                                                                                                                                                 /mod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-313184/30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ward DT, Watt AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003022222-A2
                                                                                                                                                                                                                                                                                                                                                       Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                         modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified_base
                                                                                                                                                                                 07-AUG-2003
                                                                                                                                                                                                                                                                                                               sapiens
 16;
                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                     AAD55329;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               disorder
                                                                                                                                                                                                                                                                                                               Homo
 Matches
                                                                                               셤
                             à
```

```
ö
                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to a compound 8-50 nucleobases in length targeted to a nucleic acid molecule encoding dual specific phosphatase 5, where the compound specifically hybridises with and inhibits the expression of dual specific phosphatase 5. The compound is used for treating an animal having a disease or condition associated with dual specific phosphatase 5 such as a hyperproliferative disease with a developmental disorder, an inflammatory disorder or a disease which arises from aberrant apoptosis sequences ABX09062-ABX09139 represent human dual specific phosphatase 5 phosphorothioate oligonucleotides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antisense modulation of dual specific phosphatase 5 expression used in treating disorders e.g. inflammatory diseases.
                                                                                                                                                                                                                                                                   Human dual specific phosphatase 5 phosphorothioate oligonucleotide #78
                                                                                                                                                                                                                                                                                              Human, dual specific phosphatase 5, ss, developmental disorder,
hyperproliferative disorder, inflammatory disorder aberrant apoptosis;
antiinflammatory, cytostatic, antiapoptotic, antiproliferative,
phosphorothioate oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.6%; Score 13.6; DB 1; Length 20; Clarity 80.0%; Pred. No. 4.7e+02; Conservative 0; Mismatches 4; Indels
                                  4; Indels
 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Seguence 20 BP; 4 A; 6 C; 6 G; 4 T; 0 U; 0 Other;
 Score 13.6; DB 1;
Pred. No. 4.7e+02;
0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 15; Page 85; 110pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         293 TGTAGTCGGGGCCCTGCATG 312
                                                                 145 GGGCTGCAGCTCCATACTTG 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       recadradecacciderie 20
                                                                                             GGCATTCAGCTCCACACTTG 1
                                                                                                                                                                           ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-MAY-2002; 2002WO-US015305.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAY-2001; 2001US-00865993.
      1.6%;
                                                                                                                                                                           ABX09139 standard; DNA; 20
                                                                                                                                                                                                                                       (first entry)
Query Match
Best Local Similarity 80.0
Matches 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-041418/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Watt AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                            WO200297108-A2
                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SISI (-SISI)
                                                                                                                                                                                                                                      22-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Monia BP,
                                                                                                                                                                                                          ABX09139;
                                                                                               20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                               545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                             g
                                                                 \delta
```

Human HBM STS marker reverse primer #75.

```
1. .20
/*tag= a
/mod_base= OTHER
/note= "phosphorothioate backbone, nucleotides 1-6 and 15
-20 are 2'-methoxyethoxy (MOE) nucleotides, nucleotides 7
-14 are 2'-deoxy- nucleotides, all C nucleotides are 5-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New antisense compound, useful for preparing a composition for diagnosing, treating or preventing inflammatory diseases, e.g. rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This invention describes a novel antisense compound, which is 8-30 mucleobases in length targeted to a nucleic acid molecule encoding p38 mitogen-activated protein Kinase (MAPK). The products of the invention have antiarthritic and antiliflammatory activity, can act as act as kinase inhibitors. The antisense compound is useful for preparing a composition for diagnosing, treating or preventing inflammatory diseases, e.g. rheumatoid arthritis or for use in antisense gene therapy. This sequence represents an antisense oligonucleotide used in a method to
                                                                                                                                                                                                                                                                         p38 mitogen-activated protein kinase; p38 MAPK; phosphorothioate; antisense; antiarthritic; antiinflammatory; kinase inhibitor; human; inflammatory disease; rheumatoid arthritis; gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.6%; Score 13.6; DB 1; Length 20;
80.0%; Pred. No. 4.7e+02;
iive 0; Mismatches 4; Indels
                                                                                                                                                                                                             Human p38-beta MAPK oligonucleotide ISIS NO 17895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 3 A; 4 C; 7 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mckay R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 3; Col 23-24; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                methyl cytosines
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nero P,
BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-AUG-2000; 2000US-00640101.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-00286904
ABX78105 standard; DNA; 20
                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 80.0°
Matches 16, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaarde WA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-089122/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                inhibit p38 MAPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US6448079-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-APR-1999;
                                                                                                                                          16-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .0-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monia BP,
                                                                      ABX78105;
NOT COURT OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF T
```

```
The invention relates to novel transgenic animals expressing the high bone mass (HBM) gene, expressing the corresponding wild type HBM gene, comprising an alteration of the gene encoding LRPS or LRP6, or expressing an LRP5 that is modulated by an altered gene control sequence introduced by nomologous or non-homologous recombination. The transgenic animals are invention has osteopathic and cytostatic activity. The polymucleotides of the invention may have a use in gene therapy. The pransgenic animals and nucleic acids are for the study of bone density modulation, where the bone mass is modulated relative to non-transgenic animals of the same species in more than one parameter selected from bone density, bone species in more than one parameter selected from bone density, bone transgenic animals, nucleic acids and methods are useful for identifying compositions, which may be employed for treating or preventing bone diseases, e.g. osteoporosis, osteomalacia, rickets, Paget's disease, or neoplasms of the bone. The transgenic animals and nucleic acids are also useful in methods for disaposing diseases involved in bone development, or characterised by reduced bone density or mass. The present sequence is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                        Human, high bone mass, HBM; LRP5; LRP6; transgenic; bone mass modulation; gene therapy; bone density modulation; bone strength; trabecular number; bone size; bone tissue connectivity; bone disease; osteoporosis; PCR; osteomalacia; rickets; Paget's disease; neoplasm of the bone; primer; se.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New transgenic animals (e.g. mice), useful as models for studying bone density modulation, developing drugs for treating or preventing bone diseases (e.g. osteoporosis), or diagnosing diseases characterized by reduced.bone density.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
1.6%; Score 13.6; DB 1; Length 20;
Best Local Similarity 80.0%; Pred. No. 4.7e+02;
Matches 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 3 A; 4 C; 8 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        used in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bodine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 55; 603pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     546 GACTCTGTAGCCCAACAGCA 565
                                                                                                                                                                                                                                                                                                                                                                                                                             (GENO-) GENOME THERAPEUTICS CORP. (AMHP ) WYETH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Yaworsky PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTCTGACTCCCAGCAGCA
                                                                                                                                                                                                                                                                                                                        11-MAY-2001; 2001US-0290071P.
17-MAY-2001; 2001US-029131P.
01-FBB-2002; 2002US-0353058P.
04-MAR-2002; 2002US-0361293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP.
                                                                                                                                                                                                                                                                                   13-MAY-2002; 2002WO-US014876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABX34260 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-129278/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bex FJ,
                                                                                                                                                                                                    WO200292764-A2.
                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                            21-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Babij P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABX34260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABX34260/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
SXCCCCCCCCCCCCCCCCCCCCXSXXHAHAXXXXHXBXXBXBXXBXAXBXXBXXBXXBX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ពង្គង្គង្គ
```

ö

Gaps

677

658 TTCTCATGCAGCTGAAGCTC

20 TGCTCAAGCACCTGAAGCAC 1

ద à

ВР

ACC45571 standard; DNA; 20

(first entry)

02-JUN-2003

ACC45571; RESULT 547
ACC45571/c
ID ACC4557
XX
AC ACC4557
XX
DT 02-JUN- PKA regulatory subunit RII beta antisense oligonucleotide ISIS #114509

(first entry)

26-AUG-2003

Human, cytostatic, antidiabetic, antisense therapy; phosphorothioate, protein kinase inhibitor; protein kinase A; PKA; regulatory subunit RII beta; cAMP-dependent protein kinase; diabetes; cancer; infection; inflammation; temour; ss.

Location/Qualifiers

/mod_base= OTHER

ď

1. .20 /*tag=

modified base

Synthetic.

modification"

WO2003010283-A2

06-FEB-2003.

25-JUL-2001; 2001US-00915485. 15-JUL-2002; 2002WO-US022629.

(ISIS-) ISIS PHARM INC Monia BP, Wyatt JR; WPI; 2003-239434/23.

/note= "Oligonuclectide has phosphorothicate backbone and all cytidine nuclectides are 5-methylcytidine. Optionally some nuclectides with 2'-methoxyethyl (2'-MOE wings)

```
Human, ss, antisense, serum amyloid A4; SAA4; lipoprotein;
apolipoprotein, high density lipoprotein; HDL; amyloid A; amyloid dibril;
amyloidosis; inhibition, antagonist, diagnosis, antisense therapy;
tumour formation; inflammatory disorder; pheumatoid arthritis;
                                                                                                                                                                                                                                                                                                New antisense compounds, useful for inhibiting the expression of serum amyloid A4, and for diagnosing, preventing or treating diseases associated with expression of serum amyloid A4, e.g. tumor formation or
                     Antisense oligonucleotide against human SAA4 expression, ISIS 145114.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 13.6; DB 1;
Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                       Claim 3; Col 45-46; 42pp; English.
                                                                                      Familial Mediterranean fever
                                                                                                                                                                                     01-AUG-2001; 2001US-00920672
                                                                                                                                                                                                            01-AUG-2001; 2001US-00920672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 80.0%;
Matches 16; Conservative
10-FEB-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                  inflammatory disorders.
                                                                                                                                                                                                                                 (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                            WPI; 2003-066237/06
                                                                                                           Homo sapiens
                                                                                                                                           US6455308-B1.
                                                                                                                                                                24-SEP-2002.
                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                      Freier SM;
```

New antisense oligonucleotides targeted to nucleic acid encoding protein kinase A regulatory subunit RII beta, useful in treating diseases e.g. cancer associated with the aberrant expression of the protein kinase.

```
The invention discloses antisense oligonucleotides that specifically hybridise with a region encoding human serum amyloid A4 (SAA4) and inhibit its expression. Lipoproteins are globular, micelle-like particles which have been classified into five categories. The protein components of lipoproteins are known as apolipoproteins, and one family of these are the serum amyloid proteins. These apolipoproteins are associated with the high density lipoprotein. These apolipoproteins of the amyloid proteins of the amyloid and act as precursors of the amyloid A proteins found in amyloid fibril deposits formed during the process of amyloidosis. The antisense compounds and methods are useful for modulating, (i.e. inhibiting) the expression of serum amyloid A4 (antisense therapy) diseases associated with elevated expression of serum amyloid A4, e.g. tumour formation or inflammatory disorders such as rheumatoid arthritis and familial Mediterranean fever.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The antisense compounds can also be used as research reagents and diagnostics, or as tools in differential and/or combinatorial analyses to elucidate expression patterns of a portion or the entire complement of genes expressed within cells or tissues. The sequences presented in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABX34211-ABX34288 are the antisense oligonucleotides which are directed against human SAA4 expression. Each antisense oligonucleotide has a phosphorothioate backbone, all cytidines residues are 5-methylcytidines and bases 1-5 and 16-20 are 2-methoxyethyl (2'-MOE) nucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 3 A; 5 C; 9 G; 3 T; 0 U; 0 Other;
```

```
The present invention relates to novel antisense oligonucleotides (ABZ81522-ABZ81593) which are targeted to human protein kinase A (PKA) sequelatory subunit RII beta nucleotide sequence (BAZ8131), and which specifically hybridise with and inhibit the expression of the PKA regulatory subunit RII beta (PKA is also known as CAMP-dependent protein kinase). The antisense oligonucleotides are useful for modulating the expression of PKA regulatory subunit RII beta and for treating diseases or conditions associated with aberrant expression of PKA regulatory subunit RII beta and for treating diseases or subunit RII beta and for treating diseases subunit RII beta and for treating diseases or useful for diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay infection, inflammation or tumour formation, as research reagents and kits, and in distinguishing between functions of various
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.6%; Score 13.6; DB 1; Length 20; 10.0%; Pred. No. 4.7e+02; ve 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 10 A; 2 C; 1 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 15; Page 74; 98pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            930 TICAGGITITGITITATGAG 949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   reagents and kits, and in distinmembers of a biological pathway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 rrcagarirrarrraaaag 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
nes 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACA62139 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACA62139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACA62139
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AXXXE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
```

0

Gaps

·,

217 CCTCTCCAGAAGTGACGGCC 236 ccecircadaccidacedec

20

BP.

ABZ81579 standard; DNA; 20

RESULT 549 ABZ81579/c ID ABZ815 XX AC ABZ815

ABZ81579

; 0

Fri

```
WPI; 2003-468635/44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                             Monia BP, Watt AT;
                                                                                                                            WO2003042360-A2
                      modified_base
                                                                  modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-SEP-2003
                                                                                                                                                    22-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 552
SXXXXXXXXXXXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                            The invention describes a new isolated pyruvate carboxylase polypeptide having an amino acid sequence at least 95% identical to a sequence comprising 1100 amino acids from Corynebacterium glutamicum, or the compliste amino acids from Corynebacterium glutamicum, or the the American Type Culture Collection. The polypeptide is useful as an anapherotic enzyme replenishing oxalcacetate consumed for biosynthesis during growth. The polypeptide is also useful for lysine or glutamic acid production in industrial fermentations. This sequence represents a primer used to sequence Corynebacterium glutamicum pyruvate carboxylase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; inhibitor-kappa B-R; I-kappaBR; IKBR; I-kappa-B-related; NFKBIL2; ikappab r; antisense; immune response; infection; inflammation; therapy; tumour; prophylaxis; phosphorothioate; ss.
                                                                                                                                                                                                                                                                             New pyruvate carboxylase from Corynebacterium glutamicum, useful as an anaplerotic enzyme replenishing oxaloacetate consumed for biosynthesis during growth, or for lysine or glutamic acid production in industrial
            Corynebacterium glutamicum pyruvate carboxylase sequencing primer #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                 Pyruvate carboxylase; gene; anaplerotic enzyme; oxaloacetate;
biosynthesis; growth; lysine production; glutamic acid production;
industrial fermentation; sequencing; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human inhibitor-kappa B-R antisense oligonucleotide, ISIS #130495.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . Match 1.6%; Score 13.6; DB 1; Length 20; Local Similarity 80.0%; Pred. No. 4.7e+02; es 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
1. .20
/*tag= a
/mod_base= OTHER
                                                                                                                                                                                                                                  Lessard PA, Willis LB
                                                                                                                                                                                                           (ARCH ) ARCHER-DANIELS MIDLAND CO.
                                                                                                                                                                                                                                                                                                                                        Example 5; Page 10; 29pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    749 GGTCCTTAAGGAGATGGCAG 768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GGCCATTAAGGATATGGCTG 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP.
                                                                                                                                                                          23-DEC-1998; 98US-00220081.
03-OCT-2000; 2000US-00677575.
                                                                                                                                                    15-JAN-2002; 2002US-00045072
                                                                                Corynebacterium glutamicum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAL61570 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                        WPI; 2003-479542/58
                                                                                                       US2003027305-A1
                                                                                                                                                                                                                                                                                                                     fermentations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-SEP-2003
                                                                                                                                                                                                                                   Sinskey AJ,
                                                                                                                            06-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S:
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAL61570;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAL61570
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to antisense compounds targetted to a nucleic acid molecule encoding human inhibitor-kappa B-R (also known as I-kappaBR, IXBP, I-kappa-B-related, ikappabr, nuclear factor of kappa light polypeptides gene enhancer in B-cells inhibitor-like 2 and NFBIL2) to inhibit its expression. Autisense compounds of the invention are useful for treating diseases or conditions associated with the expression of inhibitor-kappa B-R auch as a heightened immune response involving increased cytokine expression, or a result of infection (e.g. bacterial, viral or parasitio). They are useful for diagnostics, therapeutics, prophylaxis e.g. to prevent or delay infection, inflammation or tumour formation, as research reagents and kits and in distinguishing between formation, as transumembers of a biological pathway. They are also useful in antisense therapy. The present sequence is an oligonucleotide targetted to human inhibitor-kappa B-R DNA
'note= "Phosphorothioate backbone; All cytidine residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New antisense oligonucleotides targeted to nucleic acids encoding inhibitor-kappa B-R, useful for diagnosing or treating diseases associated with expression of inhibitor-kappa B-R, e.g., a heightened immune response or infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antisense; human; myeloid differentiation primary response gene 88;
MyD88; Alzheimer's disease; neurodegenerative disease; schizophrenia;
gene therapy; Down's syndrome; phosphorothioate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
0
                                                                                                                                                                                                                                                                                                   /mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides"
                                                                                                                                                                                           nucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human MyD88 antisense oligonucleotide, ISIS #190973.
                                                                                                                                                                                           (2'-MOE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 2 A; 7 C; 5 G; 6 T; 0 U; 0 Other,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.6%; Score 13.6; DB 1;
ilarity 80.0%; Pred. No. 4.7e+02;
Conservative 0; Mismatches 4;
                                                                                                                                               /mod_base= OTHER
/note= "2'-methoxyethyl
16..20
                                           are 5-methylcytidines"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 15; Page 74; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  875 CTCCATTGAGGTCCTGCATG 894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 ccccaregreficercare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAL60980 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-NOV-2001; 2001US-00993731.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-NOV-2002; 2002WO-US035597
                                                                               1..5
/*tag= b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                       /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ISIS-) ISIS PHARM INC.
```

343

```
The present invention relates to High Bone Mass (HBM), LRP5 (Zmax1) and LRP6 mutants, which results in a HBM-like phenotype when expressed in a cell. The HBM-like phenotype results in bone mass modulation and/or lipid level modulation. The invention is useful for diagnosing a HBM-like phenotype in a subject and for preparing a composition for modulating bone mass and/or lipid levels in a subject suffering from e.g. osteoporosis. The present sequence is a Sequence Tagged Site (STS) marker, which was used to prepare a physical map of the Zmax1 (LRPS) gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ss; PCR; human; anti-HIV; virucide; HIV; SIV; 88-C; 88-2B; chemokine receptor; envelope protein; atherosclerosis; rheumatoid arthritis; tumour growth suppression; asthma; viral infection; AIDS; inflammatory condition; primer.
                                                                                                                                                                                                                                                                                             New nucleic acid comprising a mutation in LRP5 or LRP6, useful for diagnosing a HBM-like phenotype in a subject and for preparing a composition for modulating bone mass and/or lipid levels in a subject
                                                                                                                                                                                                                      Liu W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                                                                                                                                                                        Yaworsky PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 13.6; DB 1; Length
Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 3 A; 4 C; 8 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                          Morales A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human chemokine receptor 88-2B-fl PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                          Graham JR,
                                                                                                                                                                                                                                                                                                                                                                                            Example 2; Page 62; 629pp; English
                                                                                                                                                                                                                                                                                                                                                           suffering from e.g. osteoporosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  546 GACTCTGTAGCCCAACAGCA 565
                                                                                                                                                                  (GENO-) GENOME THERAPEUTICS CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 GACTCTGACTCCCAGCAGCA 1
                                                                     11-MAY-2001; 2001US-0290071P.
17-MAY-2001; 2001US-0221311P.
01-FEB-2002; 2002US-0353058P.
04-MAR-2002; 2002US-0361293P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95US-00575967.
96US-00661393.
96US-00771276.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.6%;
                                   13-MAY-2002; 2002WO-US014877.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-MAR-2002; 2002US-00106623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADC03350 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCHWEICKART V L.
                                                                                                                                                                                                                          Allen K, Anisowicz A,
                                                                                                                                                                                                                                                           WPI; 2003-129214/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
nes 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US2002150888-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Д
                                                                                                                                                                                    (AMHP ) WYETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-DEC-1995;
07-JUN-1996;
20-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GRAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-OCT-2002.
21-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADC03350;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GRAY/) (SCHW/) :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
 Бр
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to antisense compounds targetted to a nucleic acid encoding human MyD88 (wyeloid differentiation primary response gene 88) to inhibits its expression. Antisense compounds of the invention are useful for preparing a composition for treating neurodegenerative disease e.g. Alzheimer's disease, Down's syndrome or schizophrenia. The invention is also useful in gene therapy. The present sequence is an antisense oligonuclectide targetted to human MyD88 DNA
                                                                                     /mod_base= OTHER /note= "Phosphorothioate backbone; All cytidine residues are 5-methylcytidines"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence tagged site #150 used to prepare Zmax1 (LRP5) gene region map.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New antisense compound, having a sequence targeted to a nucleic acid encoding MyD88, useful for preparing a composition for treating neurodegenerative disease, e.g. Alzheimer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Osteopathic, Gene therapy, High Bone Mass, HBM, LRP5, Zmaxl; LRP6, bone mass modulation, osteoporosis, STS; sequence tagged site, ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                          /*tag= c
/mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.6%; Score 13.6; DB 1; Length 20; 80.0%; Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 3 A; 6 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                    /mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              297 GTCGGGGCCCTGCATGGGAA 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 3, Page 76; 106pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 GTCGCGCCCAGCTTGGTAA 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP.
                                                                                                                                                                                                                                                                                                                                                                                                20-NOV-2002; 2002WO-US037411
                                                                                                                                                                                                                                                                                                                                                                                                                                  23-NOV-2001; 2001US-00021707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADB98269 standard; DNA; 20
                                                                                                                                                  1. .5
/*tag= b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 80.0
Matches 16, Conservative
                                                                                                                                                                                                                          .20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Karras JG, Dobie K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-505193/47.
                                                                                                                                                                                                                                                                                                                       WO2003046132-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200292000-A2
                                       Key
modified_base
                                                                                                                                                                                                                          modified_base
                                                                                                                                                  modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                             05-JUN-2003
   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADB98269
```

·.

Gaps

Gray PW,

```
Location/Qualifiers
1. .20
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                  Example 1; Page 18; 55pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            372 CGICTGGCCGTCCTGCTGGC 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CGAATGGCTCTCCTGCTGGC 20
                                                                                                 Norby PL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Norby PL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-FEB-2002; 2002DK-00000277.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-JAN-2003; 2003WO-DK000058.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACF79551 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                 (NOVO ) NOVO NORDISK AS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (NOVO ) NOVO NORDISK AS
                                                                                              Wahl P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wahl P,
                                                                                                                                                                                                                                                                                                                         contraception drugs.
                                                                                                                                                          WPI; 2003-671806/63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-671806/63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2003070766-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
modified_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-DEC-2003
                                                                                              Grondahl C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Grondahl C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACF79551;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACF79551/c
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           * X B X B X B X B X B X B B B B B B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X 
                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to screening for a modulator of human immunodeficiency virus (HIV) or simian immunodeficiency virus (HIV) or simian immunodeficiency virus (SIV) infection, comprising contacting a first composition having an human (ADC03341) or macaque (ADC03359) 88C chemckine receptor polypeptide with a second composition having an HIV or SIV envelope protein in the presence or absence of a compound. Also included are screening for a modulator of HIV infection, detecting HIV infection of cells (comprising contacting a cell that has been recombinantly modified to express at least one of human chemckine receptors 88C and 88-28 with HIV, and detecting HIV infection of cells (comprising contacting cells with an antibody to at least one of human chemckine receptors 88C and 88-28 with HIV, and detecting HIV infection of the cell after the contacting step). The methods and compositions of the present invention are useful for the diagnosis and compositions of disorders associated with the aberrant expression or activity of 88C or 88-28 beneathing selection, wirel infection, rheumatoid arthritis, tumour growth suppression, asthma, viral infection, and other inflammatory conditions. The genes for human 88-C and 88-28. Here are located on chromosome 3921. The present sequence is a PCR primer used to isolate cDNA encoding human chemckine receptors 88-28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                               Screening for a modulator of HIV and SIV infection utilizing polynuclectides that encode the 88C or 88.2B chemokine receptors, useful for diagnosing and treating disorders such as atherosclerosis, arthritis, AIDS and asthma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1...20
/t-tag= a
/mod base= OTHER
/note= "OTHER= phosphorothioate oligonucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 1.6%; Score 13.6; DB 1; Length 20; Best Local Similarity 80.0%; Pred. No. 4.7e+02; Matches 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mouse, SAMID; meiotic acting sterol; signal transduction; antiinfertility; contraceptive; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Oligonucleotide sense to SAMIb mRNA Kozak sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 3 A; 6 C; 5 G; 6 T; 0 U; 0 Other;
                                                                   Raport CJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                    Example 2; Page 23; 29pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    459 CAGGAAGAGCTCCAGGAACT 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20 CAGGAAGAGCTGCTAGCACT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뛆
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               31-JAN-2003; 2003WO-DK000058.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-FEB-2002; 2002DK-00000277.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACF79553 standard; DNA; 20
                                                                   ΛĽ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                   Schweickart
                                                                                                                            WPI; 2003-182491/18
(RAPO/) RAPORT C J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO2003070766-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Key
modified_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACF79553;
```

ds snw

RESULT 555 ACF79553

à

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is that of a sense oligonucleotide that corresponds to the Kozak sequence of mouse SAMID mRNA (see ACF79541). It was used as control in experiments with the corresponding antisense oligonucleotide (see ACF79551). Selective inhibition of the mRNA showed that SAMID is crucially involved in meiotic acting sterol (MAS) signalling, since a functional knockout of de novo protein synthesis partly disrupted MAS signals in ocytes. SAMID is a transducer of MAS signalling and is involved in the gamete maturation process induced by 3beta-hydroxy 4,4-dimethyl cholest-8.14,24-triene (FF-MAS), specifically inducing germinal vesicle breakdown in mouse occyte cultures in vitro. SAMID can be used to acreen for agonists or antagonists of FF-MAS activity for use as antiinfertility or contraceptive drugs
                                                                                                                                                                                   New polynucleotide encoding a transducer of meiotic acting sterols-
signaling or its regulatory domain, useful for isolating tissue specific
variants of the transducer which may be used as anti-infertility or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mod_base= OTHER
/note= "OTHER= phosphorothioate oligonucleotides"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 1.6%; Score 13.6; DB 1; Length 20; Best Local Similarity 80.0%; Pred. No. 4.7e+02; Matches 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mouse, SAMID; meiotic acting sterol, signal transduction, antinifertility; contraceptive; antisense; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Oligonucleotide antisense to SAM1b mRNA Kozak sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence 20 BP; 2 A; 7 C; 6 G; 5 T; 0 U; 0 Other;
Stennicke VW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Stennicke VW;
```

```
Matches
ð
             g
```

New polynucleotide encoding a transducer of meiotic acting sterols-signaling or its regulatory domain, useful for isolating tissue specific variants of the transducer which may be used as anti-infertility or contraception drugs

Example 1; Page 18; 55pp; English.

The present sequence is that of an antisense oligonucleotide that is complementary to the Kozak sequence of mouse SAMID mRNA (see ACF79541). Selective inhibition of the mRNA showed that SAMID is crucially involved in meiotic acting sterol (MAS) signalling, since a functional knockout of de novo protein synthesis partly disrupted MAS signals in occytes. SAMID is a transducer of MAS signalling and is involved in the gamete maturation process induced by 3beta-hydroxy-4,-4-dimethyl cholest-8,14,24-triene (FF-MAS), specifically inducing germinal vesicle breakdown in mouse oocyte cultures in vitro. SAMID can be used to screen for agonists or antagonists of FF-MAS activity for use as antiinfertility or contraceptive drugs

Seguence 20 BP; 5 A; 6 C; 7 G; 2 T; 0 U; 0 Other;

Gaps . 0 Length 20; Score 13.6; DB 1; Pred. No. 4.7e+02; 0; Mismatches 4; 1.6%; Local Similarity 80.0 nes 16; Conservative Query Match

372 cercreecedrecreec 391 20 ceaarectrorcierect

ADC56839 standard; DNA; 20

ВР

ADC56839;

Mouse vitronectin PCR primer 1.

(first entry)

18-DEC-2003

Mouse, oestrogen, hippocampus, gene expression, calmodulin I, chimaerin, neuromedin, T-Rec-alpha rel.; 3B-HSD related protein, ATP-binding cass.; chaperonin; HCNP; histone-like protein; ZM10; vitronectin; gene; ds.

Mus sp

JP2003139771-A.

14-MAY-2003

02-NOV-2001; 2001JP-00338515

02-NOV-2001; 2001JP-00338515.

EISA) EISAI CO LTD

WPI; 2003-818084/77.

Screening for estrogen analog, by administering test compound to rodents, isolating hippocampus, monitoring for the expression of a particular gene in hippocampus, and selecting compound that alters gene expression.

Disclosure; Fig 2; 16pp; Japanese.

The invention relates to screening for an oestrogen analogue, comprising administering a test compound to rodents, isolating hippocampus from rodents, monitoring for the expression level of a gene comprising mouse calmodulin I, chimaerin, neuromedin, T-Rec-alpha rel., 3B-HSD related protein, ATP-binding cass., chaperonin, HCNP, histone-like protein, the hippocampus and selecting a compound that alters the gene expression as oestrogen analogue. The method is useful for screening for oestrogen analogues. The identified compound is useful for studying the effect of ADCS 6839/
XX ADCS
XX ADCS
XX ADCS
XX ADCS
XX ADCS
XX MOUS
XX MOUS
XX MOUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX MUS
XX M

ó oestrogen on the brain. The present sequence is that of a PCR primer use to measure mouse gene expressed in the hippocampus and disclosed in the Gaps ó Length 20; 4; Indels G; 5 T; 0 U; 0 Other; Score 13.6; DB 1; Pred. No. 4.7e+02; 0; Mismatches 4; TCTAAAGCCAGATGCCTTCC 459 rcraaagccgacagccrrcc 1 1.6%; Local Similarity 80.0%; les 16; Conservative Sequence 20 BP; 4 A; 3 C; 8 440 20 Query Match 88888 ò 셤

BP. ADD21735 standard; DNA; 20 RESULT 558 ADD2173

(first entry) 15-JAN-2004 ADD21735;

Human mdm2 antisense oligonucleotide #291.

ò

antisense oligonucleotide; human; mdm2; hyperproliferation; hyperproliferative disorder; cancer; psoriasis; fibrosis; atherosclerosis; restenosis; apoptosis modulation; p21; ss; 2'-methoxyethoxy-residue; phosphorothicate backbone.

WO2003048315-A2.

12-JUN-2003

02-DEC-2002; 2002WO-US038281.

04-DEC-2001; 2001US-00005344.

(ISIS-) ISIS PHARM INC

X, Chiang Koller E, Monia BP, Graham MJ, Nero PS, Miraglia LJ, Manoharan M;

WPI; 2003-577263/54.

Novel antisense compound targeted to 5' untranslated region, coding region, or intron:exon junction of nucleic acid molecule encoding mdm2. useful for treating e.g. cancer, psoriasis or restenosis by inhibiting expression

Example 17; SEQ ID NO 300; 289pp; English.

The invention comprises antisense oligonucleotides which are targeted to the human mdm2 gene. The antisense oligonucleotides of the invention are useful for reducing hyperproliferation of human cells. The antisense oligonucleotides are also useful for treating: hyperproliferative disorders (e.g. cancer), psoriasis, fibrosis, atherosclerosis, or restenosis. The antisense oligonucleotides are also useful for acceptable in the appropriate and also useful for modulating apoptosis, and for increasing expression of p21. The present DNA sequence represents a human mdm2 gene antisense oligonucleotide of the invention. The present sequence contains 2'-methoxyethoxy-residues and has a

Seguence 20 BP; 2 A; 3 C; 5 G; 10 T; 0 U; 0 Other;

Gaps ô Similarity 80.0%; Pred. No. 4.7e+02; 16; Conservative 0; Mismatches 4; Indels Ma. Local S... 16; Query Match

ö

504 GATTIGGCCAGITIGGCATT 523

RESULT 559

g

```
The invention describes a compound (I) 8-80 nucleobases in length targeted to a nucleic acid molecule encoding hydroxysteroid 11-beta dehydrogenase 1. inhibiting expression of hydroxysteroid 11-beta dehydrogenase 1. The methods and compositions of the present invention are useful for treating disorders associated with hydroxysteroid 11-beta dehydrogenase 1 expression, such as osteoporosis, depression and metabolic disorders like obesity, diabetes, atherosclerosis and hyperlipidaemia. This sequence represents an antisense oligonucleotide used to control the expression of mouse hydroxysteroid 11-beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hydroxysteroid 11-beta dehydrogenase 1 expression, such as osteoporosis, depression and metabolic disorders like obesity, diabetes and atherosclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New antisense compounds useful for treating disorders associated with
                    antiarreriosclerotic; antilipemic; antisense-therapy; hydroxysteroid II-beta debydrogenase 1; osteoporosis; depression; metabolic disoxder; obesity; HSDI1B1; diabetes; atherosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Type II procollagen, COL2A1, amplification, primer, polymerase chain reaction, PCR, osteoarthritis, cartilage; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 13.6; DB 1; Length 20;
Pred. No. 4.7e+02;
0; Mismatches 4; Indels
osteopathic; antidepressant; anorectic; antidiabetic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 3 A; 5 C; 5 G; 7 T; 0 U; 0 Other;
                                                                                     hyperlipidaemia; antisense technology; mouse; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 3; SEQ ID NO 86; 53pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Type II procollagen PCR primer 70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        185 CAGIGGCCGGGTCAGITICC 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 caradecredercarrirec 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                      19-APR-2002; 2002US-00126355.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.6%;
Local Similarity 80.0%;
les 16; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93WO-US010964.
                                                                                                                                                                                                                                                            19-APR-2002; 2002US-00126355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ65870 standard; DNA; 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                               (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-852782/79
                                                                                                                                                                     US2003198965-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                dehydrogenase 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9411532-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-MAY-1994.
                                                                                                                                                                                                                   23-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                           Freier SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAQ65870;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                              ds snw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAQ65870
<u>B</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a novel method for treating melanoma cells in vitro which involves reducing tyrosinase-related protein-2 (TYRP2) in melanoma cells in vitro by contacting the cells with an antisense oligonuclectide targeting TYRP2 mRNA so that expression of TYRP2 is reduced. Subsequently, an anti-cancer therapy is administered to the cells. The molecules of the invention demonstrate cytostatic activity whilst the method of the invention may be useful for treating melanoma cells in vitro via antisense therapy. The method obviates or mitigates the one or more shortcomings of conventional methods and by selectively trageting TYRP2, resistance to anti-cancer therapy can be reduced or traversed. The current sequence is that of the human TYRP2-targeted antisense oligonucleotide of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Treating melanoma cells in vitro involves reducing tyrosinase-related protein-2 in melanoma cells by contacting cells with antisense oligonucleotide targeting TYRP2 mRNA, and administering anti-cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                               melanoma; tyrosinase-related protein-2; TYRP2; cancer; cytostatic; antisense therapy; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             / Match 1.6%; Score 13.6; DB 1; Length 20; Local Similarity 80.0%; Pred. No. 4.7e+02; nes 16; Conservative 0; Mismatches 4; Indels
                                                                                                                                                                                                                                     Human TYRP2-targeted antisense oligonucleotide - SEQ ID 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 4 A; 3 C; 7 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SUNN-) SUNNYBROOK & WOMEN'S COLLEGE HEALTH SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSD11B1 antisense oligonucleotide seq id 86.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 3; SEQ ID NO 5; 25pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     879 ATTGAGGTCCTGCATGTGAG 898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BJ;
1 GAGTTTTCCAGTTTGGCTTT 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 Argcaeerccrrearcreae 20
                                                                                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pak
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-OCT-2000; 2000US-00697074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0162227P
                                                                                                         ADD68815 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADE14484 standard; DNA; 20
                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kerbel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-764568/72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  therapy to cells.
                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                         JS6573050-B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ben-David Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-OCT-1999;
                                                                                                                                                                                          15-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                    03-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADE14484;
                                                                                                                                                   ADD68815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
```

RESULT 560

ADE14484

XEXEXEX

Best Loc Matches

ઠે

. 0

Gaps

·.

30 10:32:03

Jul

Fr:

```
Query Match
Best Local Similarity 80.0
Matches 16; Conservative
888666
                                                                                                                                      g
                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                        gene for a structural protein of cartilage comprising a sequence identified in Table I (Page 18-31). Table I includes 179 primer sequences (see AAQ65728-Q65906). The following details are given for primer 70: Alt. Code: DH-62 Region/exon: 42/43 Direction: sense Primer position: 17618 (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 18 claims primers for use in detecting mutations in a mammalian gene for a structural protein of cartilage comprising a sequence identified in Table I (Page 18-31). Table I includes 179 primer sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Detecting genetic pre-disposition to osteoarthritis - and other diseases involving mutation in cartilage protein genes, by amplification and analysis of DNA and comparison with standards.
                                                                                                    Detecting genetic pre-disposition to osteoarthritis - and other diseases involving mutation in cartilage protein genes, by amplification and analysis of DNA and comparison with standards.
                                                                                                                                                                             Claim 18 claims primers for use in detecting mutations in a mammalian
                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ΰ
                                               Baldwin C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Baldwin
                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Type II procollagen; COL2A1; amplification; primer; polymerase chain reaction; PCR; osteoarthritis; cartilage; ss.
                                                                                                                                                                                                                                                                                   1.6%; Score 13.6; DB 1; Length 21;
80.0%; Pred. No. 5e+02;
tive 0; Mismatches 4; Indels
                                             ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ala-Kokko L, Williams CJ, Ritvaniemi P,
                                               Ritvaniemi
                                                                                                                                                                                                                                                             Sequence 21 BP; 2 A; 8 C; 4 G; 7 T; 0 U; 0 Other;
                                               Williams CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Type II procollagen PCR primer 67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 18; Page 28; 112pp; English
                                                                                                                                                       Claim 18; Page 28; 112pp; English
                                                                                                                                                                                                                                                                                                                                    209 ITCCCAGCCCTCTCCAGAAG 228
                                                                                                                                                                                                                                                                                                                                                 2 TIGICIGCCCICICCIGAAG 21
                                                                                                                                                                                                                                                                                                                                                                                                                     ВР.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYJE-) UNIV JEFFERSON THOMAS
                       (UYJE-) UNIV JEFFERSON THOMAS
 92US-00977284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93WO-US010964.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92US-00977284.
                                                                                                                                                                                                                                                                                                                                                                                                                    21
                                              Prockop DJ, Ala-Kokko L,
Hopkinson I, Ahmad NN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (revised)
(first entry)
                                                                                                                                                                                                                                                                                     Query Match 1.6
Best Local Similarity 80.0
Matches 16, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                 AAQ65867 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1994-183530/22.
                                                                                  WPI; 1994-183530/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Prockop DJ,
Hopkinson I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-NOV-1993;
  13-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9411532-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-NOV-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-MAY-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-MAR-2003
22-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ65867;
```

```
.
0
                                                                                                                                                                                                                                                                         ö
(see AAQ65728-Q65906). The following details are given for primer 67:
Alt. Code: DH-59 Region/exon: 40/41 Direction: antisense Primer position:
17638 (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Peptide nucleic acid probes for detection of ribosomal nucleic acid of mycobacteria - allow differentiation between species of tuberculosis complex and others and can penetrate cell membranes without pretreatment.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This is the nucleotide sequence of the peptide nucleic acid (PNA) probe used in the method of the invention, to detect ribosomal nucleic acid of mycobacteria. The probes are used, in situ or in vitro, for detection of the Mycobacterium tuberculosis complex (MTC), specifically M. tuberculosis, and especially in sputum samples, but also in other body fluids, blopsy specimens, foods, soil, air and water. Particularly, they are used to diagnose, stage or monitor infection, or for identification of drug-resistant strains (which generally have mutations in rRNA)
                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "This sequence contains a polyamide backbone instead of a deoxyribose backbone"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SS.
                                                                                                                                                                                                                                                                         ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptide nucleic acid; PNA; probe; hybridisation; mycobacteria; ribosomal nucleic acid; rRNA; drug-resistant strain; mutation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
                                                                                                                                                                                                                                                                             4; Indels
                                                                                                                                                                                                  Score 13.6; DB 1; Length
Pred. No. 5e+02;
0; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 15 BP; 5 A; 2 C; 5 G; 3 T; 0 U; 0 Other;
                                                                                                                                      Seguence 21 BP; 7 A; 4 C; 8 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
1.6%; Score 13.4; DB 1;
Best Local Similarity 93.3%; Pred. No. 3.38+02;
Matches 14; Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 22; Page 66; 106pp; English.
                                                                                                                                                                                                                                                                                                                                            209 TTCCCAGCCCTCTCCAGAAG 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mollerup TA;
                                                                                                                                                                                                                                                                                                                                                                                                            20 rrerececerciereaas 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide nucleic acid probe 49
                                                                                                                                                                                                  1.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96DK-00001096.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96DK-00001156.
97DK-00000512.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97WO-DK000425
```

AAF46503 standard; DNA; 15 BP.

```
The present sequence represents the preferred target sequence of an enzymatic nucleic acid, especially a hammerhead ribozyme, which cleaves the Hepatitis C virus (HCV) RNA sequence at the base position given in the descriptor line. The HCV sequence was screened for optimal ribozyme target sites using a computer folding algorithm and regions of the mRNA which did not form secondary folding structures and contained potential ribozyme cleavage sites were identified. Ribozymes were synthesised to target these sites and their activities optimised by either varying the target be binding arms or by modification to prevent degradation by nucleases. The ribozymes of the invention inhibit gene expression and/or viral replication, and are used to treat diseases associated with Hepatotellular carcinoma. The ribozymes may be used in combination with interferon to treat HCV infection, other infectious diseases, autoimmune carcinoma.
                                                                                                                                                                                                                                    Enzymatic nucleic acid; hammerhead ribozyme; virus replication; cleavage; cirrhosis; liver fallure; hepatocellular carcinoma; interferon; cancer; autoimmune disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel ribozymes for the treatment of diseases and conditions related to
                                                                                                                                                                                                                  Substrate for hammerhead ribozyme which cleaves HCV RNA at nt. 8885.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.6%; Score 13.4; DB 1; Length 15; 93.3%; Pred. No. 3.3e+02; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Macejak
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 15 BP; 2 A; 7 C; 0 G; 0 T; 6 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pavco PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Roberts E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 91; 123pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0083217P.
98US-0100842P.
99US-00257608.
99US-00274553.
540 CTTCTCGACTCTGTA 554
                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US009027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (RIBO-) RIBOZYME PHARM INC.
                       CATCTCGACTCTGTA 1
                                                                                                                 AAZ64409 standard; RNA; 15
                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mcswiggen JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-062023/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                  Hepatitis C virus.
                                                                                                                                                                                                                                                                                                                                                    WO9955847-A2
                                                                                                                                                                                                                                                                                                                                                                                                                     26-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-APR-1998;
18-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-MAR-1999;
                                                                                                                                                                                 28-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hepatitis C
                                                                                                                                                                                                                                                                                                                                                                                   04-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-FEB-1999
                               15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Blatt L,
                                                                                                                                                 AAZ64409
                                                                               RESULT 56
AAZ64409/
                                                                                                                               ò
```

```
The present invention relates to a method for ameliorating the effects of skin disorders. The method comprises contacting the skin with an antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1 receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of inhibiting or reducing growth factor mediated cell proliferation, inflammation and/or other disorders. The present sequence is an oligonucleotide which can be used to design the antisense oligonucleotide which can be used to design the antisense oligonucleotide which can be used to design the antisense oligonucleotides of the present invention (see AAF45151 and AAF45153-F45161). The method is useful for ameliorating the effects of psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the skin, a hyperneovascular condition such as a neovascular condition of the retina, disease, kidhey disease, hyperproliferation of the inside of blood vessels or any other hyperplasia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ameliorating the effects of a disorder, e.g. psoriasis, by administering UV (ultra-violet) treatment (optional) and an antisense nucleic acid that inhibits or reduces growth factor mediated cell proliferation and/or
                                                                                                                                                       Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic; cytostatic; dermatological; cardiant; virtucide; ophthalmological; keloid; skin disorder; Insulin-1ke Growth Factor 1 receptor; IGF-1; pityriasis; IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris; growth factor mediated cell proliferation; ichthyrosis; serborrhoea; ruba; keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease; hyperneovascular condition; hyperplasia; kidney disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.6%; Score 13.4; DB 1; Length 15; 93.3%; Pred. No. 3.38+02; rive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 15 BP; 3 A; 2 C; 8 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                   neovascular condition of the retina; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Edmondson SR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 6; Page 42; 201pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MURD-) MURDOCH CHILDRENS RES INST.
                                                                                                                    IGFBP2 oligonucleotide #1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-JUN-2000; 2000WO-AU000693
                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 93.3<sup>1</sup>
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Werther GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     725 GGAGCTGCGGTACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-041421/05.
                                                                                                                                                                                                                                                                                                                                                                                   WO200078341-A1.
                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JUN-1999;
                                                                           30-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wraight CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                            28-DEC-2000
                                    AAF46503;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 566
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

ABX01462 standard; RNA; 15

ABX01462

ABX01462/CID ABX01XX AC ABX01XX

ô

Gaps

·.

772 TGGAGAAGAGTGTG 786

Conservative

15 recadadadadereas 1

a

RESULT 565 AAF46503

```
New oligo nucleoside(s) and nucleotide(s) with up to 200 bases - nuclease resistant anti sense cpds. useful for treating hereditary disorders of altered genetic expression mechanisms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Two TEG molecules joined via a phosphate group are attached to the 5' terminus. The cytidine residue at position 15 is attached to the 3' adenosine residue by two TEG molecules which are joined via a phosphate group. The diol-contg. linking group forms phosphodiester bonds with C and A. The resulting oligonucleotide is resistant to exonuclease degradation. See also AAQ21884-Q21895 and AAQ21897-Q21918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human, single nucleotide polymorphism; SNP, genotyping; DNA analysis; allele specific oligonucleotide; ASO; reduced complexity genome; RCG; genomic classification; identification; DNA fingerprinting;
                                  tetraethylene glycol; cancer; antisense; gene expression; inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chaturvedu PVC, Delecki DJ, Cavanaugh PF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human genomic SNP allele specific oligonucleotide SEQ ID NO:359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.6%; Score 13.4; DB 1; Length 16; 33.3%; Pred. No. 3.7e+02; ve 0; Mismatches 1; Indels
FEG-terminated exonuclease stable oligonucleotide #10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 16 BP; 3 A; 3 C; 8 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                     /mod_base= OTHER
/note= "see comments"
                                                                                                                                                                                                                           /note= "see comments"
                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 42; Page 70; 90pp; English
                                                                                                                                                                                      r= a
base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90US-00562180.
90US-00582287.
90US-00582456.
90US-00582457.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        406 TGCTCCAGCAGCTC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                     90US-00562180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA36293 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                    Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (STER ) STERLING DRUG INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16 recrecasecadecre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14; Conservative
                                                                                                                                                                                                                                                                      *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hausheer FH,
                                                                                                                                                                                    *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oakes FT;
                                                                                                                                                                                                         mod/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1992-080016/10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                modified base
                                                                                                                                                                                                                                                modified base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-SEP-1990;
13-SEP-1990;
13-SEP-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                     3-AUG-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            39-APR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3-AUG-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Weis AL, Ha
Moskwa PS,
                                                                                                                                                                                                                                                                                                                                                       WO9202534-A
                                                                                                                                                                                                                                                                                                                                                                                              20-FEB-1992
                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA36293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                              diol; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAA36293
  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       **********
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to enzymatic nucleic acids which specifically cleave RNA derived from Hepatitis C virus (HCV). The enzymatic nucleic acid or ribozyme is in a hammerhead (HB) to hairpin (HB) motif where the binding arms comprise sequences complementary to one of the substrate sequences defined in the specification. The HCV control of the substrate sequences defined in the specification. The HCV They can be used to treat cirrhosis, liver failure and/or replication of hepatocellular carcinoma. The HCV ribozymes are also useful for treating conterfer drug therapies, particularly type I interferon alpha, beta or gamma or consensus interferon. The present sequence represents a substrate for a HCV hammerhead (HH) ribozyme. Note: Some of the sequence data for this patent did not form part of the printed specification. The complete sequence data for this patent was obtained in electronic formet directly from the USPTO web site at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
                                                                                Enzymatic nucleic acid, RNA cleavage, Hepatitis C virus infection, HCV ribozyme, HCV expression, HCV replication, cirrhosis, virucide, liver failure, hepatocellular carcinoma, HCV infection, drug therapy, type I interferon, interferon alpha, interferon beta, cytostatic, interferon gamma, consensus interferon, hepatotropic, antiinflammatory, substrate, hammerhead ribozyme, HH ribozyme, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                           Hepatitis C virus substrate #1244 for HCV hammerhead ribozyme #1244.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New ribozymes targeting RNA derived from hepatitis C virus inhibit replication and are useful to treat hepatitis C virus infections an cirrhosis, liver failure or hepatocellular carcinoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.6%; Score 13.4; DB 1; Length 15; 93.3%; Pred. No. 3.3e+02; active 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Roberts B, Pavco PA, Macejack D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 15 BP; 2 A; 7 C; 0 G; 0 T; 6 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             seqdata.uspto.gov/psipsDIDEntry.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; Page 56; 80pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                772 TGGAGAAGAAGTGTG 786
                                                                                                                                                                                                                                                                                                                                                         99US-00274553
                                                                                                                                                                                                                                                                                                                                                                                                  99US-00274553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGAGAAGAAGTGAG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAQ21896 standard; DNA; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-JUN-1992 (first entry)
      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 93.3
es 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Blatt L, Mcswiggen JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                     (BLAT/) BLATT L.
(MCSW/) MCSWIGGEN J A.
(ROBE/) ROBERTS B.
(PAVC/) PAVCO P A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-617759/66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (PAVC/) PAVCO P A. (MACE/) MACEJACK D.
                                                                                                                                                                                                                             Hepatitis C virus
                                                                                                                                                                                                                                                                        US2002082225-A1.
                                                                                                                                                                                                                                                                                                                                                       23-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                  23-MAR-1999;
                                                                                                                                                                                                                                                                                                                  27-JUN-2002.
      23-DEC-2002
```

·

Gaps

.; 0

15

ð

RESULT 567 AAQ21896,

Query Match

AAQ21896;

8X8X8X

WO200159103-A2 16-AUG-2001

schu568-1.rng

```
A method has been developed for detecting the presence or absence of a single nucleotide polymorphism (SNP) allele in a genomic sample. The method comprises preparing a reduced complexity genome (RCG) from the genomic sample and analysing the RCG for the presence or absence of a SNP allele. The method can be used to characterise a tumour, to generate a genomic classification code for a genome. The method can be used to characterise a tumour, to generate a genomic classification code for a genome. The method can be used whether a subject is at risk for developing a disease or to identify a set of SNP alleles associated with a disease. The method can also be used to perform linkage analysis. AAA35944 to AAA35947 represent sequences used in the exemplification of the present invention. AAA35948 to AAA35632 represent nucleotide sequences containing SNPs
                                                                                                                                                                                                                                                                                                                                                             Detection of single nucleotide polymorphisms in genomes by preparation and analysis of reduced complexity genomes, useful for genotyping, fingerprinting and determining allele frequency of SNPs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 17 BP; 5 A; 3 C; 3 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                   Charest A;
tumour characterisation; hybridisation; ss.
                                                                                                                                                                                                                                          MASI ) MASSACHUSETTS INST TECHNOLOGY
                                                                                                                                                                                                                                                                                   Housman DE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 63; 111pp; English.
                                                                                                                                                           99WO-US022283
                                                                                                                                                                                                    98US-0101757P
                                                                                                                                                                                                                                                                                   Jordan B,
                                                                                                                                                                                                                                                                                                                         WPI; 2000-293181/25.
                                                                              WO200018960-A2
                                        Homo sapiens
                                                                                                                                                             24-SEP-1999;
                                                                                                                                                                                                    25-SEP-1998;
                                                                                                                       06-APR-2000
                                                                                                                                                                                                                                                                                   Landers JE,
```

Chowrira BM;

743 AGCCTTGGTCCTTAA 757 Query Match Best Local Similarity 93.3 Matches 14; Conservative

1 AGCCTTGGTTCTTAA 15

ABK01700 standard; RNA; 17 12-MAR-2002 ABK01700; RESULT 569

(first entry)

Human NOGO Zinzyme #22

Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic; cerebroprotective; antionian; muscular; CD20; neurite growth inhibitor gene; NOG0; hammerhead ribozyme; DNAzyme; inozyme; growth inhibitor gene; NOG0; hammerhead ribozyme; DNAzyme; inozyme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia; human immunodeficiency virus; HIV associated HHL; lymphoma; leukaemia; human immunodeficiency virus; HIV associated HHL; mantle-cell lymphoma; MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia; inflammatory arthropathy; central nervous system injury; cenebrovascular accident; CVA; Alzheimer's Gisease; multiple sclerosis; chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS; Parkinson's disease; ataxia; Huntington's disease; Creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease.

Homo sapiens.

Synthetic.

ABK01296 standard; RNA; 17 BP.

RESULT 570 ABK01296/c

Ü,

908

15 AAACTGCAGTACTGA 792 AAACTGCAGGACTGA

<u>.</u> 8

Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense constructs, which down regulate expression of a CD20 gene or neurite growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and Claim 88; Page 94; 200pp; English central nervous system injury. 11-FEB-2000; 2000US-0181797P. 28-FEB-2000; 2000US-0185516P. 06-MAR-2000; 2000US-0187128P. 09-FEB-2001; 2001WO-US004273 RIBOZYME PHARM INC. Mcswiggen J, BLATT L. MCSWIGGEN J. CHOWRIRA B M. WPI; 2001-607195/69. Blatt L, (BLAT/) (MCSW/) (CHOW/) RIBO-) ö 0; Gaps 1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; tive 0; Mismatches 1; Indels ВЪ

The invention relates to a nucleic acid molecule which down regulates expression of a CD20 gene and a nucleic acid molecule which down regulates expression of a neurite growth inhibitor gene (NGGO). The nucleic acids and provided a ribozyme or a nucleic acids (e.g. a ribozyme or a nucleic acids (e.g. a ribozyme or a nucleic acids (e.g. a ribozyme or a nucleic acids (e.g. a ribozyme or a nucleic acids (e.g. a ribozyme or a nucleic acids (e.g. a ribozyme or an amberzyme (cleaving RNA with a NGM motif), a G-cleaver (cleaving RNA with a NGM with a YGY motif). The CD20-targeting nucleic acid is used to cleave RNA with a YGY motif). The CD20-targeting nucleic acid is used to cleave RNA of CD20 in the presence of a divalent cation that is preferably Mg^2+.

CC CD20 in the presence of a divalent cation that is preferably Mg^2+.

CC CD20 in the presence of a divalent cation that is preferably Mg^2-t.

CC CD20 in the presence of a divalent cation that is preferably Mg^2-t.

CC CD20 in the presence of a divalent acid is used to cleave RNA of the use of concerned with a cD20 targeting nucleic acid may be used to treat lymphoma, leukaemia, HC CD20 targeting nucleic acid may be used to clave RNA of the NGGO gene in the presence of a divalent cation that is preferably Mg^2+. Furthermore, the concerned with a cell to reduce NGGO activity of the concerned with a cell to reduce NGGO activity of the concerned with a cell to reduce NGGO activity of the concerned with a cell to reduce NGGO activity of the concerned with a cell to reduce NGGO activity of the concerned with a cell to reduce NGGO gene in the central nervous system (CNG) injury and cerebrovascular accident (CVA, stroke), Alzhainer's disease, dementia, multiple sclerosis (AB), Parkinson's disease, and and alsease, dementia, multiple sclerosis (AB), CC cherrynore, Multingular neurodegenerative disease central respondy, and concerned a disease, demential sclerosis (RS), charactory and concerned a divalent cation, and concerned a disease, demential and treat a patient havi ; 0 Gaps ô 1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; ative 0; Mismatches 1; Indels Sequence 17 BP; 4 A; 3 C; 3 G; 0 T; 7 U; 0 Other; sequence is a zinzyme molecule of the invention Query Match
Best Local Similarity 93.3
Matches 14; Conservative

12-MAR-2002 (first entry) (CHOM/)

Human; ss; antisense therapy; cytostatic; antiinflammatory; haemostatic; cerebroprotective; nootropic; neuroprotective; antiparkinsonian; muscular; CD20; neurie growth inhibitor gene; NGG0; hammerhead ribozyme; DNAzyme; incygme; G-cleaver; amberzyme; zinzyme; lymphoma; leukaemia; B-cell lymphoma; non-Hodgkin's lymphoma; NHL; lymphocytic leukaemia; human immunodeficiency virus; HIV associated NHL; mantle-cell lymphoma; MCL; immunocytoma; IMC; immune thrombocytopaenia; stroke; dementia; inflammatory arthropathy; central nervous system injury; cerebrovascular accident; CVA; Alzheimer's disease; multiple sclerosis; chemotherapy-induced neuropathy; amyotrophic lateral sclerosis; ALS; parkinson's disease; ataxia; Huntington's disease; creutzfeldt-Jakob disease; muscular dystrophy; neurodegenerative disease. Human NOGO Inozyme #566

sapiens. Synthetic.

WO200159103-A2.

16-AUG-2001.

09-FEB-2001; 2001WO-US004273.

11-FEB-2000; 2000US-0181797P. 28-FEB-2000; 2000US-0185516P. 06-MAR-2000; 2000US-0187128P.

RIBOZYME PHARM (RIBO-)

BLATT L. MCSWIGGEN J. CHOWRIRA B M. (BLAT/) (MCSW/)

Chowrira BM; Mcswiggen J, Blatt L,

WPI; 2001-607195/69.

Nucleic acid molecules, e.g., enzymatic nucleic acids and antisense constructs, which down regulate expression of a CD20 gene or neurite growth inhibitor gene useful for treating, e.g., lymphoma, leukemia, and central nervous system injury.

Claim 88; Page 87; 200pp; English.

The invention relates to a nucleic acid molecule which down regulates expression of a CD20 gene and a nucleic acid molecule which down cepulates expression of a neurite growth inhibitor gene (NGOD). The cegulates expression of a neurite growth inhibitor gene (NGOD). The nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a nucleic acids may be enzymatic nucleic acids (e.g. a ribozyme or a nucleic acids (e.g. a ribozyme or a possessing an NCH motif), a C-dleaver (cleaving RNA with a NRN motif) properties and presence of a divalent cation that is preferably MG-2+.

The DRAZYMA with an NON triplet), a zinzyme (cleaving RNA with a VGV motif). The CD20-targetting nucleic acid is used to cleave RNA cof CD20 in the presence of a divalent cation that is preferably MG-2+.

Furthermore, it may be contacted with a coll to reduce CD20 activity of the cell and treat a patient having a condition associated with the level of CD20. The treatment may further comprise the use of one or more therapies. In particular, the CD20 targetting nucleic acid may be used to treat lymphoma (MCL), immunocytoma (IMC) annul bromboytic lymphocytic lymphoma, coll in uncleic acid is used to inflammatory arthropathy. The NOGO gene in the presence of a divalent cation that is preferably MG-2+. Furthermore, the cucleic acid may be contacted with a coll to reduce NOGO activity of the cell and treat a patient having a condition associated with the level of colland treat a patient having a condition associated with the level of the treatment may further comprise the use of one or more therapies. In particular, the NOGO-targetting nucleic acid may be used to

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                             Human; gene therapy; adenosine deaminase deficiency; p53; beta-globin; retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V; cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma, APC; HBA1; HBA2; adenomatous polyposis of the colon; Factor UI; Factor IX; thrombosis; haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOB; mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein B; LDLR; familial hypercholesterolasmia; amyloid precursor protein; artisense; UDP-qiucuronosyltransferase; amyloid precursor protein; presentilin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
treat central nervous system (CNS) injury and cerebrovascular accident (CVA, stroke), Alzheimer's disease, dementia, multiple sclerosis (MS), chemotherapy-induced neuropathy, amyotrophic lateral sclerosis (ALS), Parkinson's disease, ataxia, Huntington's disease, cutzfeldt-Jakob disease, muscular dystrophy, and/or other neurodegenerative disease states which respond to the modulation of NOGO expression. The present sequence is an inozyme of the invention
                                                                                                                                                                                Gaps
                                                                                                                                                                                .
0
                                                                                                                                                   1.6%; Score 13.4; DB 1; Length 17; 13.3%; Pred. No. 4e+02; ve 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                    LDLR mutation correcting oligonucleotide SEQ ID NO: 3715.
                                                                                                                       Sequence 17 BP; 4 A; 4 C; 3 G; 0 T; 6 U; 0 Other;
                                                                                                                                                                                                                                                                                                                 BP
                                                                                                                                                                                                             792 AAACTGCAGGACTGA 806
                                                                                                                                                                 93.3%;
                                                                                                                                                                                                                               AAACTGCAGTACTGA 2
                                                                                                                                                                                                                                                                                                                 ABA80869 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                  14; Conservative
                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                        24-JAN-2002
                                                                                                                                                                                                                                                                                                                                              ABA80869;
                                                                                                                                                      Query Match
                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                  RESULT 571
ABA80869
                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                  88888888888
                                                                                                                                                                                                               à
```

Oligonucleotide for targeted alterations of genetic sequences and for treating cystic fibrosis, comprises at least one mismatch and chemical modification. Rice MC Kmiec EB, Gamper HB, WPI; 2001-639230/73.

27-MAR-2000; 2000US-0192176P. 27-MAR-2000; 2000US-0192179P. 1-UJW-2000; 2000US-026538P. 30-OCT-2000; 2000US-0244989P.

(UYDE) UNIV DELAWARE.

27-MAR-2001; 2001WO-US009761.

antilipemic; ss

WO200173002-A2. Homo sapiens.

Claim 7; Page 246; 294pp; English.

The present invention provides single-stranded oligonucleotides which can oligonucleotide has at least one mismatch compared with the genomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at the following genes: adenosine deaminase, p53, beta-globin, retinoplastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A (CDKOZA), APC, Factor V, Factor VII, Factor IX, haemoglobin alpha locus 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6,

```
ö
apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase (UGT1), amyloid precursor protein (APC), presentlin-1 (PSEN1) and presentlin-2 (PSEN2). These can be used in the gene therapy of diseases such as cancer, adenosine deaminase deficiency, cystic fibrosis, haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia, Alzheimer's disease, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention provides single-stranded oligonucleotides which can be used for the targeted alteration of genomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at the following genes: adenosine deamliase, p53, beta-globin, retinoblastoma, BRCA1, BRCA2, CFTR, volin-dependent kinase inhibitor 2A (CDRN2A), APC, Factor VII, Factor IX, haemoglobin alpha locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human, gene therapy, adenosine deaminase deficiency; p53; beta-globin, retinoblastoma; BRCA1; BRCA2, CFTR, cystic fibrosis; cancer; Factor V; cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; ABC; HBA2, HBA2, adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis; haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE; mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR; familial hypercholesterolaemia; UGT1; syndrome; APP; FSENI; antisense; UDP-qlucuronosyltransferase; amyloid precursor protein; presenilin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oligonuclectide for targeted alterations of genetic sequences and for treating cystic fibrosis, comprises at least one mismatch and chemical modification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
                                                                                                                                                                                                                                                                                                                                                                                                        1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LDLR mutation correcting oligonucleotide SEQ ID NO: 3718.
                                                                                                                                                                                                                                                                                                                                      Sequence 17 BP; 2 A; 6 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                            oligonuclectides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 7; Page 246; 294pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rice MC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABA80872 standard; DNA; 17 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-MAR-2000; 2000US-0192176P.
27-MAR-2000; 2000US-0192179P.
01-UTN-2000; 2000US-0208538P.
30-OCT-2000; 2000US-0244989P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-MAR-2001; 2001WO-US009761.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            291 CTTGTAGTCGGGCC 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  crigcadiceedcc 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (UYDE ) UNIV DELAWARE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gamper HB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-639230/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200173002-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kmiec EB,
                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABA80872
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABA80872/A
AC ABA88
XX AC ABA88
XX AC ABA88
XX Huma:
XX Huma:
XX Huma:
XX Huma:
XX Huma:
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Home
XX Ho
       8X686666888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ठ
```

```
1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6, apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase (UGT1), amyloid precursor protein (APC), presentiln-1 (PSEN1) and presentiln-2 (PSEN2). These can be used in the gene therapy of diseases such as cancer, adenosine deaminase deficiency, cystic fibrosis, such as cancer, adenosine deaminase deficiency, cystic fibrosis, Alzheimer's disease, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting
                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention provides single-stranded oligonucleotides which can be used for the targeted alteration of genomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at the following genes: adenosine deaminase, p53, beta-globin, retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     retinoblatoma; BRCA1; BRCA2; CFTR, cystic fibrosis; cancer; Factor V, cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2; adenomatous polyposis of the colon; Factor VI; Factor IX; thrombosis; haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOB; mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein E; LDLR; familial hypercholestercolaemia; UGT1; syndrome, APP; PSEN1; antisense; UDP-glucurchosyltransferase; amyloid precursor protein; presentlin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene therapy; adenosine deaminase deficiency; p53; beta-globin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oligonucleotide for targeted alterations of genetic sequences and for treating cystic fibrosis, comprises at least one mismatch and chemical
                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                        Query Match 1.6%; Score 13.4; DB 1; Length 17; Best Local Similarity 93.3%; Pred. No. 4e+02; Matches 14; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LDLR mutation correcting oligonucleotide SEQ ID NO: 3710.
                                                                                                                                                                                                    Seguence 17 BP; 3 A; 6 C; 6 G; 2 T; 0 U; 0 Other;
                                                                                                                                          various syndromes. The present secoligonucleotides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 7; Page 246; 294pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rice MC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; 2000US-0192176P.
; 2000US-0192179P.
; 2000US-0208538P.
; 2000US-0244989P.
                                                                                                                                                                                                                                                                                                                       CTIGIAGICGGGCC 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-MAR-2001; 2001WO-US009761
                                                                                                                                                                                                                                                                                                                                                           17 crrecaerceeecc 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABA80864 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UYDE ) UNIV DELAWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gamper HB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-639230/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antilipemic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200173002-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-MAR-2000;
27-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         modification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kmiec EB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABA80864;
                                                                                                                                                                                                                                                                                                                          291
                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 573
                                                                                                                                                                                                                                                                                                                                                                                                                                             ABA80864/
      8888888888888
                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                           셤
```

```
ö
(CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6, apolipoprotein E (APOB), LDL receptor (LDLR), UDP-glucuronosyltransferase (UGT1), amyloid precursor protein (APC), presentlin-1 (PSEN1) and presentlin-2 (PSEN2). These can be used in the gene therapy of diseases such as cancer, adenosine deaminase deficiency, cystic fibrosis, hamemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia, Alzheimer's disease, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting oligonucleotides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention provides single-stranded oligonucleotides which can be used for the targeted alteration of genomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at the following genes: adenosine deaminase, p53, beta-globin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; gene therapy, adenosine deaminase deficiency; p53; beta-globin; retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V; cyclin-dependent kinase inhibitor 2A; CDKN2A; melanoma; APC; HBA1; HBA2; adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis; haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOS; mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein B; LDLR; familial hyperchesterolaemia; UGTI; syndrome; APP; PSEN1; antisense; UDP-qiucuronosyltransferase; amyloid precursor protein; presentilin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oligonucleotide for targeted alterations of genetic sequences and for treating cystic fibrosis, comprises at least one mismatch and chemical
                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                       .,
                                                                                                                                                                                                                                                         1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LDLR mutation correcting oligonucleotide SEQ ID NO: 3711.
                                                                                                                                                                                                                          Sequence 17 BP; 3 A; 6 C; 6 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 7; Page 246; 294pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rice MC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВР.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-MAR-2000; 2000US-0192176P.
27-MAR-2000; 2000US-0192179P.
01-UTUS-2000; 2000US-0208538P.
30-OCT-2000; 2000US-024989P.
                                                                                                                                                                                                                                                                                                                                             291 CTTGTAGTCGGGGCC 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-MAR-2001; 2001WO-US009761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABA80865 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                       14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                  17 crigcadrodddcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gamper HB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (UYDE ) UNIV DELAWARE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-639230/73
                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antilipemic; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200173002-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kmiec EB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABA80865;
                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                    Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 574
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
```

```
ö
retinoblastoma, BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A (CDKN2A), APC, Factor V, Factor VIII, Factor IX, haemoglobin alpha locus I (HBA1), haemoglobin alpha locus 2 (HBA2), MLH! MSH2, MSH6, MSH6, apolipoprotein E (APOE), LDL receptor (LDLR), UDP-glucuronosyltransferase (UGT1), amyloid precursor protein (APC), presentilin-1 (PSENI) and presentilin-2 (PSEN2). These can be used in the gene therapy of diseases sench as cancer, adenosine deaminase deficiency, cystic fibrosis. Alzheimer's disease, melanoma, thalassaemia, sickle cell anaemia, Alzheimer's disease, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention provides single-stranded oligonucleotides which can be used for the targeted alteration of ganomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic sequence to be altered. In particular, these sequences are directed at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; gene therapy, adenosine deaminase deficiency; p53; beta-globin, retinoblastoma; BRCA1; BRCA2; CFTR; cystic fibrosis; cancer; Factor V; cyclin-dependent kinase inhibitor 2A; CDKN24; melanoma; APC; HBA1; HBA2; adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis; haemoghilia; alpha thalassamia; haemoglobin alpha locus 1; MLH1; APOE; mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein B; LDLR; familial hypercholesterolaemia; UGT1; syndrome; APP; PSEN1; antisense; UDP-qlucuronosyltransferase; amyloid precursor protein; presentilin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oligonucleotide for targeted alterations of genetic sequences and for treating cystic fibrosis, comprises at least one mismatch and chemical modification.
                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                 1.6%; Score 13.4; DB 1; Length 17; 13.3%; Pred. No. 4e+02; ve 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LDLR mutation correcting oligonucleotide SEQ ID NO: 3719.
                                                                                                                                                                                                                                   Sequence 17 BP; 2 A; 6 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 7; Page 246; 294pp; English.
                                                                                                                                                                                           oligonucleotides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000US-0192176P.
2000US-0192179P.
2000US-0208538P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-MAR-2001; 2001WO-US009761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-OCT-2000; 2000US-0244989P
                                                                                                                                                                                                                                                                                                                                                 291 CTTGTAGTCGGGGCC 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rice
                                                                                                                                                                                                                                                                                         93.38;
                                                                                                                                                                                                                                                                                                                                                                                   1 crrecadrodedect 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABA80873 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                           Gamper HB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYDE ) UNIV DELAWARE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-639230/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antilipemic; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200173002-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-MAR-2000;
27-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-OCT-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABA80873;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kmiec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABA80873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8888888888888888
                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                 ò
```

the following genes: adenosine deaminas, insers aguarded as the following genes: adenosine deaminas, insers aguarded as tetinoblastoma BRCA1, BRCA2, CFTR, cyclin-dependent kinase inhibitor 2A (CDMNAA), ABC, Factor V, Factor IX, Aeamoglobin alpha locus 1 (HBA1), haemoglobin alpha locus 2 (HBA2), MLH1, MSH2, MSH6, apolipoprotein E (APOE), LDL receptor (LDLR), uDP-glucuronosyltransferase (UGT1), amyloid precursor protein (APC), presentlin-1 (FSENI) and presentlin-2 (PSEN2). These can be used in the gene therapy of diseases such as cancer, adenosine deaminase deficiency, cystic fibrosis, haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia, Alzheimer: diseases, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting oligonucleotides of the invention

0

sequence to be altered. In particular, these sequences are directed at the following genes: adenosine desminant of the contractions

ò

Gaps

0

1.6%; Score 13.4; DB 1; Length 17; 33.3%; Pred. No. 4e+02; ve 0; Mismatches 1; Indels

93.3%;

Query Match Best Local Similarity 93.3 Matches 14; Conservative

ô

291 CTTGTAGTCGGGGCC 305

à

Sequence 17 BP; 3 A; 6 C; 6 G; 2 T; 0 U; 0 Other;

```
the following genes: adenosine deaminase, p53, beta-globin, retinoblastoma, BRCA1, BRCA2, CTTR, cyclin-dependent kinase inhibitor 2A CUDNA2A, APC, Factor V, Factor II, Factor IX, haemoglobin alpha locus (HBA2), haemoglobin alpha locus 2 (HBA2), MIH1, MSH2, MSH6, apolipoprotein B (APOB), LDL receptor (LDLR), UDP-glucuronosyltransferase (UGT1), amyloid precursor protein (APC), presenilin-1 (FGEN1) and presenilin-2 (FSEN2). These can be used in the gene therapy of diseases such as cancer, adenosine deaminase deficiency, cystic fibrosis, haemophilia, hypercholesterolaemia, thalassaemia, sickle cell anaemia, Alzheimer's disease, melanoma, adenomatous polyposis of the colon and various syndromes. The present sequence is one of the gene correcting oligonucleotides of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; gene therapy, adenosine deaminase deficiency; p53; beta-globin; retinoblastoma; BRCA1; BRCA2, CFTR; cystic fibrosis; cancer; Factor V; cyclin-dependent kinase inhibitor 2A; CDKN24, melanoma; APC; HBA1; HBA2, adenomatous polyposis of the colon; Factor VII; Factor IX; thrombosis; haemophilia; alpha thalassaemia; haemoglobin alpha locus 1; MLH1; APOE, mismatch repair; MSH2; MSH6; hyperlipidaemia; apolipoprotein B; LDLR; familial hyperchlesterolaemia; UGT1; syndrome; APP; PSENI; antisense; UDP-Glucuronosyltransferase; amyloid precursor protein; presenilin-1; Alzheimer's disease; cytostatic; antisickling; antianaemic; haemostatic;
                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                  .<u>,</u>
                                                                                                                                                                                                                                                                          1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; ative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LDLR mutation correcting oligonucleotide SEQ ID NO: 3714.
                                                                                                                                                                                                                                          Sequence 17 BP; 2 A; 6 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABA80868 standard; DNA; 17 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-MAR-2000; 2000US-0192176P.
27-MAR-2000; 2000US-019219P.
01-UIN-2000; 2000US-0208538P.
30-OCT-2000; 2000US-0244989P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-MAR-2001; 2001WO-US009761.
                                                                                                                                                                                                                                                                                                                                                   291 CTTGTAGTCGGGCC 305
                                                                                                                                                                                                                                                                                                                                                                                 CTTGCAGTCGGGGCC 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                14; Conservative
                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antilipemic; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200173002-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABA80868;
                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ношо
                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABA80868/
       g
                                                                                                                                                                                                                                                                                                                                                   ਨੇ
```

```
The present invention relates to oligonucleotides that downregulate the expression of human Grb2-related with Insert Domain (GRID) gene. GRID is a T-cell co-stimulatory adaptor protein. The oligonucleotides are useful for modulating the expression of GRID, to treat conditions such as tissue/graft rejection and leukaemia. The oligonucleotides can also be administered in conjunction with other therapies such as radiation, chemotherapy and cyclosporin treatment. The present oligonucleotide was used to illustrate the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Domain
                                                                                                                                                                                                                    Human; Grb2-related with Insert Domain; GRID; T-cell;
co-stimulatory adaptor protein; tissue rejection; graft rejection;
leukaemia; cytostatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New nucleic acid(s) for regulating the Grb2-related with Insert E (GRID) gene comprises using antisense and enzymatic nucleic acid molecules such as hammerhead ribozymes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hamblin PA,
                                                                                                                                                                                    Human GRID NCH ribozyme substrate oligonucleotide #211.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 17 BP; 4 A; 9 C; 4 G; 0 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Von Carlowitz I, Mcswiggen JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 4; Page 66; 108pp; English.
                                                                                ABL46757 standard; RNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                                                       23-FEB-2001; 2001WO-US005957.
                                                                                                                                                                                                                                                                                                                                                                                                                         24-FEB-2000; 2000US-0184594P
crrecaerceeecc 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                       (RIBO-) RIBOZYME PHARM INC. (GLAX ) GLAXO GROUP LTD.
                                                                                                                                                  27-JUN-2003 (first entry)
                                                                                                                                                                                                                                                      leukaemia; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-550088/61.
                                                                                                                                                                                                                                                                                                                       WO200162911-A2
                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                         30-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jarvis T,
                                                                                                                      ABL46757;
91.
                                                  RESULT 577
                                                                   ABL46757,
```

The present invention provides single-stranded oligonucleotides which can be used for the targeted alteration of genomic sequences, where the oligonucleotide has at least one mismatch compared with the genomic

Oligonuclectide for targeted alterations of genetic sequences and for treating cystic fibrosis, comprises at least one mismatch and chemical modification.

Rice MC;

Gamper HB,

Kmiec EB,

WPI; 2001-639230/73.

(UYDE) UNIV DELAWARE

Claim 7; Page 246; 294pp; English.

```
WO200192524-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sabiens
                                                                                          US6251588-B1
                                                                                                                                                        10-FEB-1998;
                                                                                                                                                                                                  Shannon KW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-DEC-2001.
                                                                                                              26-JUN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABN07676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABN07676
       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention describes a method for predicting the potential of an oligonucleotide to hybridise to a (complementary) target nucleotide sequence, involving identifying a subset of oligonucleotides within the predetermined number of unique oligonucleotides based on the evaluation of the parameter. Oligonucleotides in the subset are identified that are clustered along a region of the nucleotide sequence that is hybridisable to the target nucleotide sequence. This is useful for evaluating oligonucleotide probe sequences. The present sequence is an oligonucleotide described in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                              Predicting the potential of an oligomucleotide to hybridize to a target nucleotide sequence, useful for evaluating oligonucleotide probe sequences, by identifying a oligonucleotides based on the evaluation of
                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                        Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 110.
                                                                                                                                                                                                            Nucleic acid hybridisation; probe, primer; human, rabbit, HIV-1; disease diagnosis; ss.
                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                        Webb PG, Kincaid RH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.6%; Score 13.4; DB 1; Length 17; 3.3%; Pred. No. 4e+02; ve 0; Mismatches 1; Indels
       Length 17;
      Score 13.4; DB 1; Length 1
Pred. No. 4e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 17 BP; 1 A; 2 C; 7 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                        Delenstarr GC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 1; Col 49; 342pp; English.
1.6%; Scor.
93.3%; Pred
0;
                                                                                                                                                                                                                                                                                                                                                   (AGIL-) AGILENT TECHNOLOGIES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ВЪ
                                                                                                                          AAH80146 standard; cDNA; 17 BP
                                                                                                                                                                                                                                                                                                           98US-00021701
                                                                                                                                                                                                                                                                                                                                98US-00021701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 133 TGTCTGCTTTGGGGG 147
                                                 136 CTGCTTTGGGGGCTG 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 93.3%;
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAH80145 standard; cDNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rerereririesese 16
                                                                      15 crecrerececere 1
                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                             14; Conservative
                                                                                                                                                                                                                                                                                                                                                                        Shannon KW, Wolber PK,
                                                                                                                                                                                                                                             Oryctolagus cuniculus
                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-424456/45.
      Query Match
Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                           10-FEB-1998;
                                                                                                                                                                                                                                                                                                                                10-FEB-1998;
                                                                                                                                                                  19-SEP-2001
                                                                                                                                                                                                                                                                US6251588-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-SEP-2001
                                                                                                                                                                                                                                                                                      26-JUN-2001,
                                                                                                                                                                                                                                                                                                                                                                                                                                                  parameters
                                                                                                                                               AAH80146;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAH80145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 579
AAH80145
ID AAH801
XX
AC AAH801
XX
DT 19-SEP
                                                                                                   RESULT 57
AAH80146
                                                                                                                           셤
```

```
The present invention describes a method for predicting the potential of an oligomucleotide to hybridise to a (complementary) target mucleotide sequence, involving identifying a subset of oligomucleotides within the predetermined number of unique oligomucleotides based on the evaluation of the parameter. Oligomucleotides in the subset are identified that are clustered along a region of the nucleotide sequence that is hybridisable to the target nucleotide sequence. This is useful for evaluating oligomucleotide probe sequences. The present sequence is an oligomucleotide described in the exemplification of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Predicting the potential of an oligonuclectide to hybridize to a target nucleotide sequence, useful for evaluating oligonucleotide probe sequences, by identifying a oligonucleotides based on the evaluation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human, genome-derived myosin-like protein 1, GDMLP-1, hGDMLP-1, heart;
muscle; myosin, chromosome 22, gene therapy, vaccine; heart disease;
skeletal muscle disorder; amplicon; screening; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
Oligonucleotide hybridisation potential related cDNA SEQ ID NO: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:7668.
                                                                     Nucleic acid hybridisation, probe, primer, human, rabbit, HIV-1;
disease diagnosis, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kincaid RH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 17 BP; 0 A; 2 C; 7 G; 8 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Webb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Delenstarr GC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 1; Col 49; 342pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (AGIL-) AGILENT TECHNOLOGIES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-00021701.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-MAY-2001; 2001WO-US016981.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-MAY-2000; 2000US-0207456P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            133 TGTCTGCTTTGGGGG 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABN07676 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wolber PK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-424456/45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
```

ö

2000US-0234687P 2000US-0236359P

```
skeletal muscle disorder; amplicon; screening; ss.
                                                                                                  25-MAY-2001; 2001WO-US016981
                                                 WO200192524-A2.
                          Homo sapiens.
                                                                                                                                                                 04-OCT-2000;
                                                                                                                                                     27-SEP-2000;
                                                                          06-DEC-2001
                                                                                                                                                                                                                                                                                                                                                        Gu Y,
 The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-1 can be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids in samples, as amplification substrates, to nucleic acids in samples, as amplification substrates, to provide initial substrates for the recombinant engineering of hGDMLP-1 protein variants having desired phenotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunogens to raise antibodies that specifically recognise hGDMLP-1 proteins, as standards in assays used to determine the concentration and/or amount specifically of hGDMLP-Proteins, as specific biomolecule capture probes for surface-enhanced laser description ionisation, as therefore, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The production and skeletal muscle disorders. hGDMLP-1 may be used for diagnosing a disorder sequence represents an oligomer used in the screening of the horselve the present invention. N.B. The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at fire, wipo.int/pub/published_pot_sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                  New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                  Chen W, Shannon ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              y Match 1.6%; Score 13.4; DB 1; Length 17; Local Similarity 93.3%; Pred. No. 4e+02; nes 14; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence 17 BP; 7 A; 1 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                   Rank DR,
                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 7668; 214pp; English
                                                                                                                                                                                                                   Gu Y, Ji Y, Penn SG, Hanzel DK,
                                     2001WO-US000661.
2001WO-US000662.
2001WO-US000663.
2001WO-US000664.
                                                                                    2001WO-US000665.
2001WO-US000666.
2001WO-US000667.
2001WO-US000668.
2001WO-US000669.
                                                                                                                                                     2001WO-US000670
                                                                                                                                                                 05-FEB-2001; 2001US-0266860P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    768 GAACTGGAGAAGAAG 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 GAGCTGGAGAAGAAG 17
                                                                                                                                                                                           (AEOM-) AEOMICA INC.
                                                                                                                                                                                                                                           WPI; 2002-179446/23.
                                                 30-JAN-2001;
30-JAN-2001;
30-JAN-2001;
                                                                                        30-JAN-2001;
                                                                                                    30-JAN-2001;
                                                                                                                 30-JAN-2001;
                                                                                                                             30-JAN-2001;
                                                                                                                                         30-JAN-2001;
30-JAN-2001;
                         04-OCT-2000;
                                        30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S:
Matches 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 581
```

```
The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polynuclectide sequences of hGDMLP-1 clan be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids can be used as probes to detect, characterise and quantify hGDMLP-1 nucleic acids in samples, as amplification substrates from the recombinant engineering of hGDMLP-1 protein variants having desired phenotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunogens to raise antibodies that specifically recognise hGDMLP-1 proteins, as specific biomolecule and/or amount specifically recognise hGDMLP-1 production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The polymucleotide sequences encoding hGDMLP-1 may be used for diagnosing a disorder associated with the expression of hGDMLP-1, in particular heart and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.

The present sequence represents an oligomer used in the screening of the hGDMLP-1 sequence data for this pattent did not form part of the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shannon ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ouery Match 1.6%; Score 13.4; DB 1; Length 17; Best Local Similarity 93.3%; Pred. No. 4e+02; Matches 14; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 17 BP; 6 A; 2 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rank DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 7669; 214pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ftp.wipo.int/pub/published_pct_sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hanzel DK,
                                                               2001WO-US000663
2001WO-US000664
                                                                                                                                                                                        2001WO-US000667
2001WO-US000668
                                                                                                                                                                                                                                                     2001WO-US000669.
2001WO-US000670.
2001US-0266860P.
2001WO-US000661
2001WO-US000662
                                                                                                                               2001WO-US000665
                                                                                                                                                             2001WO-US000666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              768 GAACTGGAGAAGAAG 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 GAGCTGGAGAGAAG 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Penn SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2002-179446/23.
                                                                                                                                                                                                                                                                                                                                                                                        (AEOM-) AEOMICA INC.
                                                                                                                                                          30-JAN-2001;
30-JAN-2001;
30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ji Y,
                                                               30-JAN-2001;
   30-JAN-2001;
                                                                                                                               30-JAN-2001;
                                                                                                                                                                                                                                                        30-JAN-2001;
                                                                                                                                                                                                                                                                                                                        05-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
```

ö

RESULT 582

Human, genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart; muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease;

Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:7669.

ABN07677 standard; DNA; 17 BP

29-MAY-2002 (first entry)

ABN07677;

schu568-1.rng

```
The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-1 can be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids in samples, as amplification substrates, to nucleic acids in samples, as amplification substrates, to hGDMLP-1 nucleic acids in samples, as amplification substrates, to provide initial substrates for the recombinant engineering of hGDMLP-1 protein variants having desired phenotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunogens to raise antibodies that specifically recognise hGDMLP-1 proteins, as specifically recognise hGDMLP-1 proteins, as specifically recognise hGDMLP-1 proteins, as specifically recognise hGDMLP-1 proteins, as upplement in pastients having specific deficiency in hGDMLP-1 proteins, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The conduction, and in vaccines or for replacement therapy. The production as skeletal muscle disorders. hGDMLP-1 may be used for diagnosing a disorder associated with the expression of hGDMLP-1, in particular heart and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22.

The present sequence in this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO can fire they proved the present did not form part of the printed sequence in they be used for dispace of the printed specification, but was obtained in electronic format directly from WIPO can fire the present sequence in the sequence in the sequence in the sequence in the sequence in the present did not form mat of the printed specification, but was obtained in electronic format directly from WIPO can fire the present sequence in the present sequence in the sequence in the sequence in the seque
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1.
                                                                                                                                                                                                                                                                                                                                            Human, genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart; muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss.
                                                                                                                                                                                                                                                                           Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:7670.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shannon ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rank DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; SEQ ID NO 7670; 214pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-JAN-2001, 2001WO-US000661.
30-JAN-2001, 2001WO-US000662.
30-JAN-2001, 2010WO-US000663.
30-JAN-2001, 2001WO-US000664.
30-JAN-2001, 2001WO-US000666.
                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-JAN-2001; 2001WO-US000669.
30-JAN-2001; 2001WO-US000668.
30-JAN-2001; 2001WO-US000669.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0234687P.
2000US-0236359P.
2000GB-00024263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-MAY-2001; 2001WO-US016981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-JAN-2001; 2001WO-US000670
05-FEB-2001; 2001US-0266860P
                                            ABN07678 standard; DNA; 17
                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gu Y, Ji Y, Penn SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-179446/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (AEOM-) AEOMICA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200192524-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-SEP-2000;
27-SEP-2000;
04-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-MAY-2000;
                                                                                                                                                                                              29-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-DEC-2001
                                                                                                                         ABN07678;
ABNO 0.678

ABNO 0.67678

ABNO
```

Sequence 17 BP; 7 A; 2 C; 7 G; 1 T; 0 U; 0 Other;

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polymucleotide sequences of hGDMLP-1 lean be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids can be used probes to detect, characterise and quantify hGDMLP-1 mucleic acids in samples, as amplification substrates, to provide initial substrates for the recombinant engineering of hGDMLP-1 protein variants having desired phenotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunogens to raise antibodies that specifically recognise hGDMLP-1 proteins, as standards in assays used to determine the concentration and/or amount specifically of hGDMLP proteins, as specific biomolecule capture probes for surface-enhanced laser desorption ionisation, as therapeutic supplement in patients having specific deficiency in hGDMLP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1.
                                                                                                                                                                                                                                                                                               Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart; muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss.
                                   Gaps
                                                                                                                                                                                                                                                                    Human GDMLP-1 17-mer scanning SEQ ID NO:5 sequence SEQ ID NO:8380.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shannon ME;
                                 .
0
Score 13.4; DB 1; Length 17;
Pred. No. 4e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rank DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; SEQ ID NO 8380; 214pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001WO-US000667.
2001WO-US000668.
2001WO-US000669.
2001WO-US000670.
2001US-0266860P.
                                                                                                                                                                          ABN08388 standard; DNA; 17 BP
1.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-0236359P.
2000GB-00024263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001WO-US000662
2001WO-US000663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001WO-US000665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US000666
                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAY-2001; 2001WO-US016981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US000664
                                                               768 GAACTGGAGAAGAAG 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001WO-US000661
                                                                                            GAGCTGGAGAAGAAG 15
                                                                                                                                                                                                                                     (first entry)
                                 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gu Y, Ji Y, Penn SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (AEOM-) AEOMICA INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-179446/23.
                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                WO200192524-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JAN-2001; 2
30-JAN-2001; 2
30-JAN-2001; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-OCT-2000;
30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-FEB-2001;
                                                                                                                                                                                                                                      29-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                             06-DEC-2001.
                                                                                                                                                                                                       ABN08388;
   Query Match
Best Local
                                                                                                                                              RESULT 583
                                 Matches
                                                                                            ద
                                                                                                                                                                          ò
```

schu568-1.rng

```
consist to the genetic sequence to be altered and further comprises chemical modifications of the oligonucleotide. The chemical modifications of the oligonucleotide. The chemical modifications of consist of ormethyl modification, an LNA modification, two or more phosphorothicate linkages on a terminus, or a combination of any two or compressions. The oligonucleotides are useful for directing repair or alteration of plant genetic information. The coligonucleotides are particularly useful for creating plants with desired of phonotypes, e.g. environmental or abiotic stress tolerance, improved nutritional value (e.g. altering amino acid content of plants or conferring amino acid over production), herbicide resistance (e.g. altering amino acid out triazine resistance, or grown triazine and sulphonylurea herbicide resistance, porphyric herbicide resistance or triazine resistance).

C glyphosate resistance, midazolinone and sulphonylurea herbicide resistance, porphyric herbicide resistance or triazine resistance).

C disease resistance, modified oil production of modified fatry acid content of e.g. increased starch or production of waxy starch), altered floral corpusion production of waxy starch), altered floral corpusion production of ways starch), altered floral corpusion of modified fatry acid content of e.g. reduced plantster, increased stearate or reduced linolenic acid).

C The oligonucleotides are also useful for producing albino mutants for the analysis of photosynthetic processes. This sequence represents a genome of altering oligonucleotide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chromosomal genomic alteration, genome altering oligonuclectide, PCR, ss, o-methyl modification, LNA modification, phosphorothioate linkage; DNA repair, DNA alteration, environmental tolerance, hygromycin-B, abiotic stress tolerance, improved nutritional value, hygromycin, primer, amino acid over production; herbicide resistance, glyphosate resistance, porphyric herbicide resistance, sulphonylurea herbicide resistance, prophyric herbicide resistance, triazine resistance, altered floral morphology; male-sterile plant; albino mutant; andified fatty acid content; reduced palmitate production; albino plant; albino mutant; in the case of stearch production; albino mutant; in the case of stearch production; albino plant; albino mutant; albino plant; albino mutant; al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Reduced palmitate production genome altering oligonucleotide #47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 17 BP; 3 A; 3 C; 4 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kim J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rice MC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABK26751 standard; DNA; 17 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUN-2000; 2000US-0208538P.
30-OCT-2000; 2000US-0244989P.
27-MAR-2001; 2001US-00818875.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2001; 2001WO-US017672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           938 TIGITITATGAGICA 952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rrgrrrraccacrca 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-APR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        photosynthetic process.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kmiec EB, Gamper HB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (UYDE ) UNIV DELAWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-106307/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gossypium hirsutum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200192512-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABK26751;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABK26751/0
ABK26
XX
ACA ABK26
XX
XX
ACA OD B Reduc
XX
Chrom
KW O-met
KW DNA P
ACA OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD OD B
KW AD AD B
KW AD AD B
KW AD AD B
KW AD AD AD
KW AD AD AD
KW AD AD AD
KW AD AD AD
KW AD AD AD
KW AD AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW AD
KW
                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chromosomal genomic alteration; genome altering oligonucleotide; PCR; ss; o-methyl modification; LNA modification; phosphorothioate linkage; DNA repair; DNA alteration; environmental tolerance; hygromycin; bind alteration; dever production; modificational value; hygromycin; primer; amino acid over production; herbicide resistance; glyphosate resistance; porphyric herbicide resistance; sulphonylurea herbicide resistance; porphyric herbicide resistance; triazine resistance; disease resistance; modified oil production; modified starch production; waxy starch; modified factal morphology; male sterile plant; albino mutant; modified stearte production; albino plant; increased stearte production; reduced linolenic acid production; albino plant; increased stearte production; reduced linolenic acid production;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New oligonucleotides with modified nuclease-resistant termini, useful for creating plants with desired phenotypes, e.g. stress tolersuce, improved nutritional value, herbicide or disease resistance, or modified oil
       production, and in vaccines or for replacement therapy. The polynucleotide sequences encoding hGDMLP-1 may be used for diagnosing a disorder associated with the expression of hGDMLP-1, in particular heart and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22. The present sequence represents an oligomer used in the screening of the hGDMLP-1 sequence in the exemplification of the present invention. N.B. The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to an oligonucleotide for targeted alteration of a genetic sequence, which comprises a single-stranded oligonucleotide having a DNA domain. The DNA domain has at least one mismatch with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reduced palmitate production genome altering oligonucleotide #48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                           1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                            Sequence 17 BP; 5 A; 5 C; 6 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 7; Page 170; 220pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rice MC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-2001; 2001WO-US017672.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2000; 2000US-0208538P.
30-OCT-2000; 2000US-0244989P.
27-MAR-2001; 2001US-00818875.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            405 CIGCICCAGCAGGCT 419
                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 95....
Thes 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABK26752 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16 crácrccactracir 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      photosynthetic process
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   UYDE ) UNIV DELAWARE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gamper HB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-106307/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gossypium hirsutum.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200192512-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     production
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kmiec EB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABK26752;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABK26752
                             888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
```

0

Gaps

.

Indels

New oligonucleotides with modified nuclease-resistant termini, useful for creating plants with desired phenotypes, e.g. stress tolerance, improved nutritional value, herbicide or disease resistance, or modified oil production

Claim 7; Page 170; 220pp; English.

The invention relates to an oligonucleotide for targeted alteration of a genetic sequence, which comprises a single-stranded oligonucleotide having a DNA domain. The DNA domain has at least one mismatch with respect to the genetic sequence to be altered and further comprises chemical modification, an LNA modification, two or more phosphorothicate linkages on a terminus, or a combination of any two or more phosphorothicate linkages on a terminus, or a combination of any two or consist of ormetry modifications. The oligonucleotides are useful for directing repair or alteration of plant genetic information. The oligonucleotides are particularly useful for creating plants with desired phenotypes, e.g. environmental or abiotic stress tolerance, improved conferring amino acid content of plants or conferring anino acid over production), herbicide resistance (e.g. altering amino acid content of plants or conferring amino acid use tarchology care resistance, inidazolinone and sulphomylurea herbicide resistance, or production of waxy starch), altered floral corphology (e.g. male-sterile plants) or modified fatty acid content of e.g. increased starch or production, modified starch production (e.g. increased starch or production of waxy starch), altered floral corphology (e.g. male-sterile plants) or modified fatty acid content of e.g. enale-sterile plants) or modified fatty acid content or the oligonucleotides are also useful for producing albino mutants for the analysis of photosynthetic processes. This sequence represents a genome altering oligonucleotide of the invention

Sequence 17 BP; 7 A; 4 C; 3 G; 3 T; 0 U; 0 Other;

0; Match 1.6%; Score 13.4; DB 1; Length 17; Local Similarity 93.3%; Pred. No. 4e+02; les 14; Conservative 0; Mismatches 1; Indels TIGITITATGAGICA 952 16 TIGITITACGAGICA 2 938 Query Match Best Loc Matches à

ö

Gaps

ABK19436 standard; RNA; 17 BP RESULT 586 ABK19436/c BY REAL BY SYNER WAS SERVED AND BY SERVED AND BY SERVED AND BY SON SERVED AND BY SERVE

ABK19436;

(first entry) 09-APR-2002 Human ERG Amberzyme target sequence Seq ID No 2083.

Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic; ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic; vulnerary; cencer; lymphoma; Ewing's sarcoma; melanoma; psoriasis; tumour angiogenesis; diabetic retinopathy; macular degeneration; neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris; angiofibroma of tuberous sclerosis; port-wine stain; wound healing; Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss; Osler-Weber-rendu syndrome; leukaemia; osteoporosis; DNAzyme; inozyme; amberzyme.

Homo sapiens

WO200188124-A2.

22-NOV-2001.

16-MAY-2001; 2001WO-US015866

L6-MAY-2000; 2000US-00572021

RIBOZYME PHARM INC. GLAXO GROUP LTD. (RIBO-) (GLAX)

Randi AM Mclaughlin F, Von Carlowitz I, Mcswiggen JA, WPI; 2002-082995/11. Jarvis T,

Novel polynucleotide which down regulates expression of Ets-related gen useful for treating cancer, diabetic retinopathy, macular degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber syndrome.

Claim 4; Page 129; 149pp; English.

The invention relates to a nucleic acid molecule (I) which down regulates expression of an Ets-related gene (ERG). (I) is useful for treating conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma, tumour anglogenesis, diabetic retinopathy, macular degeneration, neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca vulgaris, anglofibroma of tuberous sclerosis, port-wine stains, Sturge Weber syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for treating a patient having a condition associated with the level of ERG, by contacting cells of the patient with (I) under conditions suitable for the treatment. The method comprises the use of one or more therapies under conditions suitable for the treatment. Leukaemia or tumour conjunction with one or more of other therapies such as radiation or chemotherapy treatment. (I) is useful for the patient in conjunction with one or more of other therapies such as radiation or chemotherapy treatment. (I) is useful for the patient in conjunction with one or more of other therapies such as radiation or chemotherapy treatment. (I) is useful for cleaving RNA of ERG gene, by contacting the cell with (I). (I) is useful for cleaving RNA of ERG gene, by contacting the cell with (I). (I) is useful for cleaving RNA of ERG gene, by contacting the cell with (I). (I) is useful for specifically cleases related to the expression of ERG, and as diagnostic tool to examine genetic drift and mutations within diseased cells or to detect targeting genes that share homology with ERG gene or ERG fusion genes. ABRI7354-ABRZ2719 represent nucleic acids, including antisense and contacting confidence of more acids, including antisense and contacting confidence of more acids, including antisense and contacting the confidence of more acids, including antisense and contacting more acids. related PCR primers of the invention

Sequence 17 BP; 5 A; 6 C; 2 G; 0 T; 4 U; 0 Other;

Gaps ·. 1.6%; Score 13.4; DB 1; Length 17; 13.3%; Pred. No. 4e+02; .ve 0; Mismatches 1; Indels Query Match
Best Local Similarity 93.3%; Pre
Matches 14; Conservative 0;

ö

881 TGAGGTCCTGCATGT 895 15 readGrecheaarer

ò ద

ABK19435 standard; RNA; 17 BP. ABK19435, RESULT

ABK19435;

09-APR-2002 (first entry)

Human ERG Amberzyme target sequence Seq ID No 2082.

Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic; ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic; vulnerary; canner; lymphoma; Ewing's sarcoma; melanoma; psoriasis; tumour angiogenesis; diabetic retinopathy; macular degeneration; neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris; angiofibroma of tuberous sclerosis; port-wine stain; wound healing; Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; leukaemia; ss; Osler-Weber-rendu syndrome, leukaemia; osteoporosis; DNAzyme; inozyme; amberzyme.

Homo sapiens.

WO200188124-A2

22-NOV-2001.

Randi AM;

Mcswiggen JA, Mclaughlin F,

schu568-1.rng

```
The invention relates to a nucleic acid molecule (I) which down regulates expression of an Ets-related gene (ERG). (I) is useful for treating conditions selected from cancer, lymphoma, Ewing's sarcoma, melanoma, tumour angiogenesis, diabetic retinopathy, macular degeneration, neovascular glaucoma, myopic degeneration, arthritis, psoriasis, veruca vulgaris, angiofibroma of tuberous sclerosis, portwine stains, Sturge where syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-rendu syndrome, Ieukaemia, osteoporosis and wound healing. (I) is useful for treating a patient having a condition associated with the level of ERG, by contacting calls of the patient with (I) under conditions suitable for the treatment. The method comprises the use of one or more therapies under conditions suitable for the treatment. Leukaemia or tumour condictions valuable for the treatment. Leukaemia or tumour angiogenesis is treated by administering (I) to the patient in conjunction with one or more of other therapies such as radiation or chemotherapy treatment. (I) is useful for reducing ERG activity in a cell, by contacting the cell with (I). (I) is useful for cleaving RNA of ERG gene, by contacting (I) with RNA, in the presence of a divalent cation such as Mg2+. (I) is useful for genein collitions and diseases related to the expression of ERG, and as diagnostic tool to examine genetic drift and mutations within diseased cells or to detect the presence of ERG RNA in a cell. (I) is useful for specifically cargeting genes that share homology with ERG gene or ERG fusion genes. ABK17354-ABK22719 represent nucleic acids, including antisense and cargeting cargeting genes that share homology with ERG gene or ERG fusion genes. Service of more coller acids, including antisense and collers acid molecules which regulate expression of ERG, and
                                                                                                                                                                                                                                                                                                                                      Novel polynucleotide which down regulates expression of Ets-related gen useful for treating cancer, diabetic retinopathy, macular degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           related PCR primers of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 4; Page 129; 149pp; English
                           16-MAY-2001; 2001WO-US015866.
                                                                                 16-MAY-2000; 2000US-00572021
                                                                                                                                                                                                                         Jarvis T, Von Carlowitz I,
                                                                                                                                       (RIBO-) RIBOZYME PHARM INC.
(GLAX ) GLAXO GROUP LTD.
                                                                                                                                                                                                                                                                               WPI; 2002-082995/11.
```

Sequence 17 BP; 6 A; 5 C; 2 G; 0 T; 4 U; 0 Other;

Gaps .; 0 . Match 1.6%; Score 13.4; DB 1; Length 17; Local Similarity 93.3%; Pred. No. 4e+02; es 14; Conservative 0; Mismatches 1; Indels Query Match Matches à

ABK18426 standard; RNA; 17 BP. ABK18426; RESULT 588 ABK18426/

09-APR-2002 (first entry)

Human ERG hammerhead ribozyme target sequence, Seq ID No 1073.

Human; hammerhead ribozyme; cytostatic; antitumour; antidiabetic; ophthalmological; antiarthritic; antipsoriatic; virucide; osteopathic; vulnerary; cancer; lymphoma; Ewing's sarcoma; melanoma; psoriasis; tumour andiogenesis; diabetic retinopathy; macular degeneration; neovascular glaucoma; myopic degeneration; arthritis; verruca vulgaris; angiofibroma of tuberous sclerosis; port-wine stain; wound healing; Sturge Weber syndrome; Kippel-Trenaunay Weber syndrome; leukaemia; se; Osler-Weber-rendu syndrome; leukaemia; osteoporosis; DNAzyme; inozyme;

The invention relates to a nucleic acid molecule (I) which down regulates expression of an Ets-related gene (ERG). (I) is useful for treating conditions selected from cancer, lymphoma, Ewing's sacroma, melanoma, tumour angiogenesis, diabetic retinopathy, macular degeneration, neovascular glaucoma, myopic degeneration, arthritis, psoriasis, verruca vulgaris, angiofibroma of tuberous sclerosis, port-whos stains, Sturge where syndrome, leukaemia, osteoporosis and wound healing. (I) is useful for treating a patient having a condition associated with the level of ERG, by contacting cells of the patient with (I) under conditions suitable for the treatment. The method comprises the use of one or more therapies under conditions suitable for the treatment. Eukaemia or tumour conjunction with one or more of other therapies such as radiation or conjunction with one or more of other therapies such as radiation or chemotherapy treatment. (I) is useful for reducing ERG activity in a cell, by contacting the cell with (I). (I) is useful for cleaving RNA of ERG gene, by contacting the cell with (I). (I) is useful for cleaving RNA of ERG gene, by contacting the expression of ERG, and as diagnostic tool to examine genetic drift and mutations within diseased cells or to detect the presence of ERG RNA in a cell. (I) is useful for specifically cargeting genes that share homology with ERG gene or ERC fusion genes. ABRIJ354-ABK2219 represent nucleic acids, including antisense and contacting the contactines which regulate expression of ERG, and contacting cell molecules which regulate expression of ERG, and contacting enemals. Novel polymucleotide which down regulates expression of Ets-related gene, useful for treating cancer, diabetic retinopathy, macular degeneration, arthritis, psoriasis, verruca vulgaris and Sturge Weber syndrome. Jarvis T, Von Carlowitz I, Mcswiggen JA, Mclaughlin F, Claim 4; Page 78; 149pp; English. 16-MAY-2001; 2001WO-US015866. 16-MAY-2000; 2000US-00572021 (RIBO-) RIBOZYME PHARM INC. (GLAX) GLAXO GROUP LTD. WPI; 2002-082995/11. WO200188124-A2. Homo sapiens. 22-NOV-2001 amberzyme.

Randi AM;

Gaps ., 1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; Live 0; Mismatches 1; Indels Sequence 17 BP; 7 A; 5 C; 2 G; 0 T; 3 U; 0 Other; Query Match
Best Local Similarity 93.55,
Conservative

related PCR primers of the invention

;

ö

ઠે a

ABT38926 standard; DNA; 17 BP. ABT38926 ABT38926/c **XXXXXXXXX**

12-JUN-2003

Tumour suppression related human fukutin oligo SEQ ID No 4563. (first entry)

Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip;

human fukutin; ds

```
The invention relates to a novel isolated 17 mer mucleic acid sequence, given in the specification, a sequence containing at least 15 consecutive nucleotides from the 17 mer sequence, a sequence with, after optimal alignment, at least 80 % identity to the 17 mer sequence, a sequence that hybridizes to them under highly stringent conditions, or the complement of alignment, or the corresponding RNA. The novel isolated nucleic acids of the invention are useful as probes and primers for detecting, identifying quantifying and/or amplifying a nucleic acid, e.g. as one component of a gene chip, in vitro as (anti) sense reagents, and for production of recombinant polypeptides. Any of the nucleic acids, component of a gene chip, in vitro as (anti) sense reagents, and for production of recombinant polypeptides. Any of the nucleic acids, colls containing the nucleic acids, cells containing the nucleic acids, cells containing the nucleic acids, cells containing the nucleic acids, cells containing the nucleic acids, cells containing the nucleic acids, cells containing the nucleic acids for prevention and/or treatment of viral diseases that are characterised by development of tumours or cell degeneration, specifically cancer but also Alzheimer's disease and scharacterised by development of the 17 mer nucleic acids in containing the polypeptides can also be used to generate antibodies, and contained samples is useful for disapnosis and/or prognosis of these contained acid sequences of the invention can be used in gene therapy. This polyputcleotide sequence represents a tumour suppression contained the acids have an expension of the invention can be used in gene therapy. This polyputcleotide sequence represents a tumour suppression contained the acids and antibodies are useful to be acids to generate antibodies.
antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease; schizophrenia; protein chip; gene therapy; tumour suppression; human fukutin; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New isolated nucleic acid, useful for treating viral diseases associated with tumors and cell degeneration, also related polypeptides, antibodies and transfected cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 567; 720pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                         Tuijnder M;
                                                                                                                                                                                                                                                                                                                                                                                   (MOLE-) MOLECULAR ENGINES LAB
                                                                                                                                                                                                                                                                             17-SEP-2002; 2002WO-IB004208.
                                                                                                                                                                                                                                                                                                                                I7-SEP-2001; 2001FR-00011978.
                                                                                                                                                                                                                                                                                                                                                                                                                                      Telerman A, Amson R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-313353/30.
                                                                                                                                                                    WO2003025175-A2.
                                                                                                                    Homo sapiens
                                                                                                                                                                                                                       27-MAR-2003
```

. 0 Match 1.6%; Score 13.4; DB 1; Length 17; Local Similarity 93.3%; Pred. No. 4e+02; les 14; Conservative 0; Mismatches 1; Indels Sequence 17 BP; 1 A; 4 C; 5 G; 7 T; 0 U; 0 Other; Query Match

557 CCAACAGCAGGGATC 571 15 ccaacagaaggarc 1 g

ABT34751 standard; DNA; 17 12-JUN-2003 (first entry) ABT34751; RESULT 590
APT3473471
XX
AC ABT3471
DT 12-UUN
XX
XX
CY
CY
KW CYLOSEE
KW SCHIZOST
KW SCHIZOST

BP.

Cytostatic; virucide; neuroprotective; nootropic; neuroleptic; gene chip; antisense; sense; tumour; cell degeneration; cancer; Alzheimer's disease; schizophrenia; protein chip; gene therapy; tumour suppression; Tumour suppression related human fukutin oligo SEQ ID No 388.

Tuijnder M; (MOLE-) MOLECULAR ENGINES LAB 17-SEP-2002; 2002WO-IB004208. 17-SEP-2001; 2001FR-00011978. Telerman A, Amson R, WPI; 2003-313353/30. WO2003025175-A2. Homo sapiens. 27-MAR-2003

New isolated nucleic acid, useful for treating viral diseases associated with tumors and cell degeneration, also related polypeptides, antibodies and transfected cells.

Disclosure; Page 79; 720pp; French.

The invention relates to a novel isolated 17 mer nucleic acid sequence, given in the specification, a sequence containing at least 15 consecutive conclocides from the 17 mer sequence, a sequence with, after optimal allocations from the 17 mer sequence, a sequence that concloties from the 18 % identity to the 17 mer sequence, a sequence that obtained at least 80 % identity to the 17 mer sequence, a sequence that the corresponding RNA. The novel isolated nucleic of any of them, or the corresponding RNA. The novel isolated nucleic acids, consider of the invention are useful as probes and primers for detecting, identifying, quantifying and/or amplifying a nucleic acid, e.g. as one conditions of recombinant polypeptides. Any of the nucleic acids, and for production of recombinant polypeptides. Any of the nucleic acids, collypeptides, vectors containing the nucleic acids, cells containing the nucleic acids, cells containing the nucleic acids, cells containing the nucleic acids, cells containing the nucleic acids, cells containing the polypeptides are useful for preparation of pharmaceuticials for prevention and/or treatment of viral diseases that are characterised by development of tumours or cell diseases that are characterised by development of tumours or cell caption specifically cancer but also Alzheimer's disease and stient samples is useful for diagnosis and/or prognosis of these contents and protein chips. The nucleic acid sequences of the invention can be used in gene therapy. This polymucleotide sequence represents a tumour suppression characterian at the polymucleotide sequence represents a tumour suppression can be used in gene therapy. This polymucleotide of the invention can be used in gene therapy. This polymucleotide sequence represents a tumour suppression can be used in gene therapy. This polymucleotide of the invention at the polymucleotide sequence represents a tumour suppression can be used in gene therapy.

Sequence 17 BP; 6 A; 3 C; 2 G; 6 T; 0 U; 0 Other;

Gaps ; 0 Local Similarity 93.3%; Score 13.4; DB 1; Length 17; es 14; Conservative 0; Mismathhar Query Match Best Loca Matches

ö

à

.; 0

Gaps

ADB02158 standard; DNA; 17 BP (first entry) 20-NOV-2003 ADB02158; RESULT 591 ADB02158 셤

Human MDZ4 scanning oligonucleotide SEQ ID 3144.

Cytostatic; immunostimulant; gene therapy; vaccine; human; zinc finger protein; MDZ3; MDZ4; MDZ12; chromosome 7q22.1; chromosome 6p21.3-22.2; chromosome 16p11.2; chromosome 15q26.1; cancer; developmental disorder; ss.

```
The present invention relates to novel human zinc finger-containing proteins and their coding sequences: MDZ3, MDZ4, MDZ12, MDZ12 MDZ3 is proteins and their coding sequences: MDZ3, MDZ4, MDZ12, MDZ12, MDZ12, MDZ12, MDZ12 is encoded at chromosome 6P21.3-22.2, MDZ7 is encoded at chromosome 16P11.2 and MDZ12 is encoded at chromosome 16P12 is encoded at chromosome 16P12 is encoded at chromosome 16P12, and MDZ12 is encoded at chromosome 16P12, and MDZ12 is encoded at chromosome 16P2, is encoded at chromosome 16P12, and MDZ12 is encoded at chromosome 16P2, is encoded at chromosome 16P2, MDZ1, is encoded at chromosome 16P2, MDZ1, or MDZ12, e.g. cancer or developmental disorders. The nucleic acids and proteins are also useful for diagnosing or monitoring a disease acides and proteins are probes to detect and characterize gross also be used as probes to detect and characterize gross also mbZ2, MDZ4, MDZ7, or MDZ12 genetic locus. The probes are useful in constructing microarrays for measuring gene expression. The proteins are useful as therapeutic agents for gene therapy or as proteins. The present sequence was used to illustrate the invention.
                                                                                                                                                                                             New zinc finger-containing proteins and nucleic acids, useful in manufacturing a medicament for treating or preventing a disorder associated with decreased or increased expression or activity of MD23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
anti-rheumatic; cancer; AIDS; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; ative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 17 BP; 6 A; 4 C; 5 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                           Example 8; SEQ ID NO 3145; 103pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human HER2 DNAzyme substrate #829.
                                                                                                                                                                                                                                                                         MDZ4, MDZ7 or MDZ12, e.g. cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     372/c
ABZ65372 standard; RNA; 17 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-MAY-2001; 2001US-0294140P.
06-JUN-2001; 2001US-0296249P.
10-SEP-2001; 2001US-0318471P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-MAY-2002; 2002WO-US016840.
02-AUG-2001; 2001US-00922181
                                                                                                 Gu Y, Nguyen C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             317 AGACTGCAGAGAGG 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 AGACTGCAGAGATGC 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (RIBO-) RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-MAR-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 93.3
                                                                                                                                                WPI; 2003-423107/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-140484/13
                                                    (AEOM-) AEOMICA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200297114-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mcswiggen J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-DEC-2002.
                                                                                                 Shannon M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABZ65372;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABZ65372/
     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SHARIN KRIKER KENKOK GARAKER KERAKAKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention relates to novel human zinc finger-containing proteins and their coding sequences: MD23, MD24, MD27, MD212. MD23 is cancded at chromosome 7422.1. MD24 is encoded at chromosome 6721.3.22.2.

MD27 is encoded at chromosome 1601.2 and MD212 is encoded at chromosome some 15q26.1. The MD23, MD24, MD27, and MD212 sequences are useful in therapy, or imanufacturing a medicament for treating or preventing a disorder associated with decreased or increased expression or activity of MD23, MD24, MD27, or MD212, e.g. cancer or developmental disorders. The nucleic acids and proteins are also useful for diagnosing or monitoring a disease acids can also be used as probes to detect and characterize gross alterations in MD23, MD24, MD27, or MD212. The nucleic acids can also be used as probes to detect and characterize gross alterations in MD23, MD24, MD27, or MD212 genetic locus. The probes are proteins are useful as therapeutic agents for gene therapy or as proteins. The present sequence was used to illustrate the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cytostatic; immunostimulant; gene therapy; vaccine; human; zinc finger protein; MDZ3; MDZ4; MDZ1; MDZ12; chromosome 7q22.1; chromosome 6p21.3-22.2; chromosome 16p11.2; chromosome 15q26.1; cancer; developmental disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                  New zinc finger-containing proteins and nucleic acids, useful in manufacturing a medicament for treating or preventing a disorder associated with decreased or increased expression or activity of MD23,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 17 BP; 5 A; 4 C; 5 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human MDZ4 scanning oligonucleotide SEQ ID 3145.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 8; SEQ ID NO 3144; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDZ4, MDZ7 or MDZ12, e.g. cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADB02159 standard; DNA; 17 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-JUL-2002; 2002EP-00016874.
                                                                                                                                                           30-JUL-2002; 2002EP-00016874
                                                                                                                                                                                                          32-AUG-2001; 2001US-00922181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     317 AGACTGCAGAGAAGC 331
                                                                                                                                                                                                                                                                                                        Gu Y, Nguyen C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 AGACTGCAGAGATGC 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14; Conservative
                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-423107/40.
                                                                                                                                                                                                                                                         (AEOM-) AEOMICA INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
             Homo sapiens,
                                                         EP1281758-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-NOV-2003
                                                                                                         05-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-FEB-2003
                                                                                                                                                                                                                                                                                                           Shannon M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 592
ADB02159
```

Š В

ò

Gaps

., 0

The invention relates to a novel short interfering RNA (siRNA) nucleic acid molecule, that modulates expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, H-Ras, human immunodeficiency virus (HIV) or a component of HIV. The nucleic acid molecule of the invention has cytostatic, anti-HIV, and anti-rheumatic activity. The nucleic acid molecules are useful for reducing HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are laso useful for treating breat, ovarian, colorectal, lung, prostate, bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences shown in ABZ59889 - ABZ65216, ABZ65531, ABZ65520 - ABZ65524, ABZ65530 - ABZ65520 - ABZ65524, ribozymes of the invention Novel short interfering RNA and enzymatic nucleic acid useful for treating cancer, modulates the expression of a nucleic acid encoding HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences. Claim 4; Page 149; 185pp; English.

Novel compound useful for treating cirrhosis, liver failure, hepatocellular carcinoma, or condition associated with hepatitis C virus

Claim 1; Page 281; 387pp; English.

infection.

ď, Lee

Pavco P,

Mcswiggen J, Morrissey D,

Macejak D, Roberts E;

Blatt L, Draper WPI; 2003-229207/22

Sequence 17 BP; 3 A; 9 C; 4 G; 0 T; 1 U; 0 Other;

ö 1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; tive 0; Mismatches 1; Indels 142 TGGGGCTGCAGCTC 156 14; Conservative Query Match Best Local Similarity Matches ò

ö

Gaps

receeeracaearc 1 15 셤

ACD62041 standard; RNA; 17 BP (first entry) 23-SEP-2003 ACD62041; RESULT 594 ACD62041

HCV minus strand DNAzyme substrate sequence #352.

Nucleic acid molecule, Hepatitis C virus, HCV; Hepatitis B virus, HBV, RNA stability; RNA expression; RNA synthesis; antisense; enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme; amberzyme, G-cleaver ribozyme, decoy molecule, aptemer; HBV reverse transcriptase; Enhancer I region; viral replication; degenerative, disease state; HBV infection; HCV infection; cirrhosis; liver failure; hepatocellular carcinoma; hepatotropic; cytostatic; virucide; antiinflammatory; substrate; ss.

Hepatitis C virus.

WO200281494-A1.

26-MAR-2002; 2002WO-US009187

amberzymete, G-cleaver ribozyme, decoy molecule, aptamer, amberzyme, G-cleaver ribozyme, decoy molecule, aptamer, degenerative, disasse state; HBV infection, viral replication; degenerative, disasse state; HBV infection; HCV infection; cirrhosis; liver failure, hepatocellular carcinoma; hepatotropic; cytostatic; viroide; antiinflammatory; substrate; ss.

2001US-00877478. 2001US-0296876P. 2001US-0335059P. 08-JUN-2001;

RIBOZYME PHARM INC.

LEE

2001US-00817879. 2001US-00877478. 2001US-0296876P.

26-MAR-2001; 2 08-JUN-2001; 2 08-JUN-2001; 2 24-OCT-2001; 2

26-MAR-2002; 2002WO-US009187.

17-OCT-2002.

Hepatitis C virus WO200281494-A1.

26-MAR-2001; 2001US-00817879 24-OCT-2001; 2001US-0335059P 05-DEC-2001; 2001US-0337055P MACEJAK D. MCSWIGGEN J. MORRISSEY D. PAVCO P. DRAPER K. ROBERTS E. BLATT L. MACEJAK I 17-OCT-2002 (RIBO-) (BLAT/) (MACE/) (MCSW/) (MORR/) (PAVC/) (LEEP/) THE STATE OF THE S

The present invention relates to nucleic acid molecules which modulate
the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
are nucleic acid decory molecules and aptemers that bind to HBV reverse
transcriptase and/or HBV reverse transcriptase primer sequences, as well
as oligonucleotides that specifically bind the Enhancer I region of HBV
DNA. The nucleic acids may be used to modulate the expression of HBV
compounds and/or potential theraples directed against HBV, and compounds
that modulate the expression and/or replication of HGV. The compounds and
methods of the invention are useful for the treatment of degenerative and
disease states related to HBV and HCV infection, replication and gene
expression such as cirrhosis, liver failure, and hepatocellular
carcinoma. The present sequence represents a substrate for one of the HCV
DNAzyme or minus strand DNAzyme sequences disclosed in the present Nucleic acid molecule, Hepatitis C virus; HCV; Hepatitis B virus, HBV; RNA stability; RNA expression; RNA synthesis; antisense; enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme; Gaps .; 0 1.6%; Score 13.4; DB 1; Length 17; 66.7%; Pred. No. 4e+02; ive 4; Mismatches 1; Indels Sequence 17 BP; 6 A; 6 C; 1 G; 0 T; 4 U; 0 Other; HCV DNAzyme substrate sequence #1926. 708 CCCATAGCCAAATTT 722 3 CCCAUAACCAAAUUU 17 ACD60628 standard; RNA; 17 24-SEP-2003 (first entry) Local Similarity 66.7 nes 10, Conservative ACD60628; Query Match Best Loc Matches RESULT 595 ACD60628/ ò THE SECOND SECON

ö

05-DEC-2001; 2001US-0337055P.

RIBOZYME PHARM INC

(RIBO-)

BLAT/

MACEJAK D. MCSWIGGEN J. MORRISSEY D.

(MACE/) MORR/

PAVCO P. LEE P. ROBERTS E DRAPER K.

(PAVC/) (LEEP/) (DRAP/)

(ROBE/)

```
The present invention relates to murine oligonuclectides (ACC62754-ACC68806), which are associated with tumour suppression, tumour reversion, apoptosis and virus resistance. The oligonuclectides are useful as (1) as probes and primers for detecting, identifying, quantifying and/or amplifying nucleic acid, e.g. as one component of a gene chip, in vitro as (anti)sense reagents, and (2) for production of recombinant polypeptides. The oligonuclectides are useful for preparation of pharmaceuticals for prevention and/or treatment of viral diseases that
                                                                                                                                                                                                                                                                            New isolated nucleic acid, useful for treating viral diseases associated with tumors and cell degeneration, also related polypeptides, antibodies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated nucleic acid, useful for treating viral diseases associated with tumors and cell degeneration, also related polypeptides, antibodies and transfected cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cytostatic, virucide, neuroprotective, nootropic, neuroleptic, murine, tumour suppression; tumour reversion, apoptosis, virus resistance, viral disease; tumour, cell degeneration; cancer; Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Murine oligonucleotide associated with tumour supression, SEQ ID 5257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             are characterised by development of tumours or cell degeneration, specifically cancer but also Alzheimer's disease and schizophrenia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 17 BP; 5 A; 4 C; 5 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 398; 738pp; French.
                                                                                                                                                                            Tuijnder M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tuijnder M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACC68010 standard; DNA; 17 BP.
                                                                                                                           (MOLE-) MOLECULAR ENGINES LAB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MOLE-) MOLECULAR ENGINES LAB
                     17-SEP-2002; 2002WO-IB004210.
                                                                         17-SEP-2001; 2001FR-00011979.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-SEP-2002; 2002WO-IB004210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-SEP-2001; 2001FR-00011979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    674 GCTCACAGATGGATC 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTCACAGTTGGATC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 93.33
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                   and transfected cells.
                                                                                                                                                                               Amson R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Amson R,
                                                                                                                                                                                                                                WPI; 2003-333167/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-333167/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2003025176-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUL-2003
                                                                                                                                                                               Telerman A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    relerman A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACC68010;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACC68010
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to nucleic acid molecules which modulate the synthesis, expression and/or stability of Hepatitis C virus (HCV) or Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense and enzymatic nucleic acids such as harmerhead ribozymes, DNAzymes, amberzymes, and G-cleaver ribozymes, DNAzymes, care nucleic acid decoy molecules and aptamers that bind to HBV reverse transcriptase primer sequences, as well as oligonucleotides that specifically bind the Enhancer I region of HBV genes and/or HBV reverse transcriptase primer sequences, as well as oligonucleotides that specifically bind the Enhancer I region of HBV genes and HBV viral replication. Also disclosed is a method for screening compounds and/or potential therapies directed against HBV, and compounds that modulate the expression and/or potential therapies directed against HBV, and compounds methods of the invention are useful for the treatment of degenerative and disease states related to HBV and HV infection, replication and gene expression such as cirrhosis, liver failure, and hepatocellular carcinoma. The present sequence represents a substrate for one of the HCV DNAzyme or minus strand DNAzyme sequences disclosed in the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel compound useful for treating cirrhosis, liver failure, hepatocellular carcinoma, or condition associated with hepatitis C virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cytostatic, virucide, neuroprotective, nootropic, neuroleptic, murine, tumour suppression, tumour reversion, apoptosis, virus resistance, viral disease, tumour, cell degeneration, cancer, Alzheimer's disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Murine oligonucleotide associated with tumour supression, SEQ ID 3143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                          Lee P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                          Mcswiggen J, Morrissey D, Pavco P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1.6%; Score 13.4; DB 1; Length 17; 93.3%; Pred. No. 4e+02; cive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Seguence 17 BP; 4 A; 1 C; 6 G; 0 T; 6 U; 0 Other;
```

BP.

ACC65896 standard; DNA; 17

RESULT 596

(first entry)

01-JUL-2003

ACC65896;

schizophrenia; ss.

WO2003025176-A2. fus musculus.

27-MAR-2003

708 CCCATAGCCAAATTT 722

8

Local Similarity 93.3 es 14; Conservative

Best Loca Matches

Query Match

16 cccaraaccaaarrr 2

Claim 1; Page 268; 387pp; English.

infection.

Macejak D, Roberts E;

Blatt L, 1 Draper K,

WPI; 2003-229207/22

ö

Gaps

..

```
Disclosure; Page 645; 738pp; French
```

```
The present invention relates to murine oligonucleotides (ACC62754-ACC68806), which are associated with tumour suppression, tumour reversion, apoptosis and virus resistance. The oligonucleotides are useful as (1) as probes and primers for detecting, identifying, quantifying and/or amplifying nucleic acid, e.g. as one component of a gene chip, in vitro as (anti) sense reagents; and (2) for production of recombinant polypeptides. The oligonucleotides are useful for preparation of pharmaceuticals for prevention and/or treatment of viral diseases that are characterised by development of tumours or cell degeneration, specifically cancer but also Alzheimer's disease and schizophrenia
```

Sequence 17 BP; 6 A; 4 C; 5 G; 2 T; 0 U; 0 Other;

```
;
0
/ Match 1.6%; Score 13.4; DB 1; Length 17; Local Similarity 93.3%; Pred. No. 4e+02; les 14; Conservative 0; Mismatches 1; Indels
                                                                         661 TCATGCAGCTGAAGC 675
                                                                                                          rcardcadcadadc 17
                                                                                                          'n
         Query Match
                                                                                                        ద
                                                                            ò
```

ö

Gaps

Hb. ADD81036 standard; DNA; 17 ADD81036; RESULT 598 ADD81036

ss; oligonucleotide hybridisation potential; efficient hybridisation; large array; minimum oligonucleotide synthesis; rabbit; beta-globin. Rabbit beta-globin fragment derived oligonucleotide #70.

(first entry)

29-JAN-2004

Oryctolagus cuniculus

US2003054346-Al.

20-MAR-2003.

15-FEB-2001; 2001US-00784674

98US-00021701. 10-FEB-1998;

WOLBER P K. DELENSTARR G C. SHANNON K W. WEBB P SHAN/) (WOLB/) (DELE/) (WEBB/)

(KINC/) KINCAID R H.

Kincaid RH; Webb PG, Delenstarr GC, Shannon KW, Wolber PK,

WPI; 2003-743746/70.

Predicting potential of oligonucleotides to hybridize to target nucleotide sequence comprises determining and evaluating for each oligonucleotide a parameter predictive of the oligonucleotides ability to nybridize with target.

Example 1; SEQ ID NO 109; 423pp; English.

The invention relates to a method of predicting the potential of oligonucleotides to hybridise to target nucleotide sequences. The method is useful for predicting the potential of an oligonucleotide to hybridise to a target nucleotide sequence, e.g. RNA or DNA or a sequence that contains chemically modified nucleotides. The method is also useful for predicting the potential of the oligonucleotides to hybridise to a complementary target nucleotide sequence. The method is useful to predict efficient hybridisation oligonucleotides for each of multiple target

```
ö
sequences therefore very large arrays may be constructed and tested with minimum synthesis of oligonucleotides. The present sequence represents a rabbit beta-globin derived oligonculeotide sequence.
                                                                                                                                                                                                                                ss; oligonucleotide hybridisation potential; efficient hybridisation;
large array; minimum oligonucleotide synthesis; rabbit; beta-globin.
                                                                         Gaps
                                                                         .
0
                                                     Ouery Match
1.6%; Score 13.4; DB 1; Length 17;
Best Local Similarity 93.3%; Pred. No. 4e+02;
Matches 14; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                Rabbit beta-globin fragment derived oligonucleotide #71.
                                      Sequence 17 BP; 0 A; 2 C; 7 G; 8 T; 0 U; 0 Other;
                                                                                                                                                            ADD81037 standard; DNA; 17 BP
                                                                                            133 TGTCTGCTTTGGGGG 147
                                                                                                         3 TGTCTGTTTTGGGGG 17
                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                29-JAN-2004
                                                                                                                                                                              ADD81037;
                                                                                                                                         RESULT 599
                                                                                                                                                    ADD81037
                                                                                                                                                            8 X C C C
                                                                                                          d
                                                                                             ઠે
```

Æ; Kincaid Webb PG, Delenstarr GC, Wolber PK, (SHAN/) SHANNON K W.
(WOLB/) WOLBER P K.
(DELE/) DELENSTARR G (WEBB/) WEBB P G.
(KINC/) KINCAID R H. WPI; 2003-743746/70. Shannon KW,

10-FEB-1998; 98US-00021701. 15-FEB-2001; 2001US-00784674.

Oryctolagus cuniculus.

US2003054346-A1.

WOLBER P K. DELENSTARR G C.

Predicting potential of oligonuclectides to hybridize to target nucleotide sequence comprises determining and evaluating for each oligonucleotide a parameter predictive of the oligonucleotides ability to hybridize with target

Example 1; SEQ ID NO 110; 423pp; English.

The invention relates to a method of predicting the potential of oligonucleotides to hybridise to target nucleotide sequences. The method is useful for predicting the potential of an oligonucleotide to hybridise to a target nucleotide sequence, e.g. RNA or DNA or a sequence that contains chemically modified nucleotides. The method is also useful for predicting the potential of the oligonucleotides to hybridise to complementary target nucleotide sequence. The method is useful to predict efficient hybridisation oligonucleotides for each of multiple target efficient hybridisation oligonucleotides for each of multiple target minimum synthesis of oligonucleotides. The present sequence represents a rabbit beta-globin derived oligonucleotide sequence.

Sequence 17 BP; 1 A; 2 C; 7 G; 7 T; 0 U; 0 Other;

. 0 Gaps .. 0 Query Match 1.6%; Score 13.4; DB 1; Length 17; Best Local Similarity 93.3%; Pred. No. 40+02; Matches 14; Conservative 0; Mismatches 1; Indels

```
Polymerase chain reaction; PCR; amplify; primer; PLA2s; mutation; APC; type II non-pancreatic phospholipase A2; microsatellite; colon cancer; adenomatous polyposis coli; ss.
                                                                                                                                                                                                                                                                          Identifying an individual at an elevated risk of colon cancer - by detecting mutation(s) in PLA2s gene.
                                                                                                                                                                                                                                            Chepenik KP;
                                                                                                                                                                                                                                                                                                  Example 2; Page 39; 78pp; English
                                                   AAT48840 standard; cDNA; 18 BP
                                                                                                                                                                                                                            (UYJE-) UNIV JEFFERSON THOMAS
                                                                                                                                                                                              96WO-US009009.
147
                                                                                                                                                                                                             95US-00484359.
              2 rerererriresese 16
                                                                                                                                                                                                                                            Siracusa LD,
                                                                                    (first entry)
133 TGTCTGCTTTGGGGG
                                                                                                 Rat PLA2s primer, ZW-1.
                                                                                                                                                                                                                                                           WPI; 1997-052369/05.
                                                                                                                                                                                                                                            Buchberg AM,
                                                                                                                                                                409641003-A1
                                                                                                                                                                                              06-JUN-1996;
                                                                                                                                                                                                             07-JUN-1995;
                                                                                   16-SEP-1997
                                                                                                                                                                              19-DEC-1996
                                                                   AAT48840;
                                    à
          q
```

```
The sequences given in AAT48840-41 are primers which were used in the amplification of the rat type II non-pancreatic phospholipase A2 (PLA28) gene. Mutations within this sequence may lead to an individual having an increased risk of colon cancer. The method of the invention comprises: (a) isolating genetic material from a tissue or body fluid sample from the individual; and (b) detecting a PLA28 gene mutation which is indicative of the individual is at an elevated risk of colon cancer; or an isolated protein sample which is indicative of the individual having an elevated protein sample which is indicative of the individual having an elevated risk of colon cancer. The method allows individuals with the treatment of colon cancer. The method allows individuals with the treatment of colon cancer, the patient is administered a recombinant vector incorporated within a non-toxic enteric microorganism which
```

```
ö
                                                                                                          Gaps
                                                                                                          ö
                                              Query Match 1.6%; Score 13.4; DB 1; Length 18; Best Local Similarity 93.3%; Pred. No. 4.4e+02; Matches 14; Conservative 0; Mismatches 1; Indels
Sequence 18 BP; 3 A; 4 C; 5 G; 6 T; 0 U; 0 Other
```

ö

Gaps

. 0

323 CAGAGAAGCTGTGGA 337 CAGAGAAGTTGTGGA 18

ਨੇ 셤

Local Similarity 93.3

Best Loca Matches

AAZ06596 standard; DNA; 18

RESULT 602

23-NOV-1999 (first entry)

AAZ06596;

```
16 ACAGGAGGACCTTCA 2
                                           RESULT 601
```

262 ACAGGAGCACCITCA 276

ઠે 임

AAZ41080 standard; DNA; 18 26-JAN-2000 (first entry) AAZ41080; AAZ41080 HXXXH

```
the expression of a target nucleic acid (tNA) sequence via binding to the expression of a target nucleic acid (tNA) sequence via binding of the compounds with the tNA sequence. The method comprises generating a library of virtual compounds in silico according to defined criteria, and evaluating in silico the binding of the virtual compounds with the tNA according to defined criteria. Also described are: (i) a method of defining a set of oligonuclectides (ONS) that modulate the expression of a tNA sequence via binding of the ONS with the tNA sequence comprising generating a library of virtual compounds in silico according to defined criteria, and evaluating in silico the binding of the virtual ONS with the tNA according to defined criteria, and (2) a method of defining a set of compounds that modulate the expression of a tNA sequence via binding of the compounds with the tNA. The methods can be used for the generation and identification of synthetic compounds having defined physical, chemical or bioactive properties. Information gathered from assays of such compounds is used to identify nucleic acid sequences that are tractable to a variety of nucleotide sequence-based technologies e.g. antisense drug discovery and target validation. AAZ40852 to AAZ41220, and ANS22701 to AAX52701 to present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        used to
                       Human ELK-1 phosphorothioate antisense oligonucleotide SEQ ID NO:232.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Brooks DG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Identifying compounds which modulate expression of nucleic acids, provide compounds having defined physical, chemical or bioactive
                                               Identification; genetic target; gene modulation; human; probe; antisense oligonucleotide; phosphorothioate; PCR primer; nucleotide sequence-based technology; antisense drug discovery; target validation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.6%; Score 13.4; DB 1; Length 18; 93.3%; Pred. No. 4.4e+02; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sasmor HM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 18 BP; 8 A; 1 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Freier SM,
Vickers TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 24; Page 105; 264pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              properties, e.g. antisense activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   M, Baker BF, Mcneil J,
Wyatt JR, Borchers AH,
                                                                                                                                                                                                                                                                                                                                              98US-0081483P.
98US-00067638.
                                                                                                                                                                                                                                                                                                       99WO-US008268
                                                                                                                                                                                                                                                                                                                                                                                                          (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-620446/53.
                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                              13-APR-1998;
28-APR-1998;
                                                                                                                                                                                                                                                                                                          13-APR-1999;
                                                                                                                                                                                                                        WO9953101-A1
                                                                                                                                                                                                                                                               21-OCT-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cowsert LM,
Ohasi C, W
                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
```

238 rRNA; food, personal care product; toothpaste; cosmetic; shampoo; pharmaceutical; probe; hybridisation; PCR; ss.

Salmonella typhimurium

WO200036146-A1

5. typhimurium 23S rRNA gene probe # 4.

(first entry)

10-NOV-2000

AAA64844;

```
Sequences AAZ06571-Z06607 are antisense polymucleotides targeted to a nucleic acid molecule encoding human ELK-1 (also known as p62TCF). ELK-1 is a member of the ternary complex factor subfamily of Ets-domain transcription factor proteins. The polymucleotides inhibit the expression of human ELK-1, and this sequence targets the 3' untranslated region of the ELK-1 RNA. Sequences AAZ06571-Z06607 all cause at least 30% inhibit the expression of human ELK-1 in human cells or tissues in vitro. ELK-1 uses a bipartite recognition mechanism mediated by both protein-DNA and protein-protein interactions to regulate genes by direct and indirect DNA binding and other cell functions including apoptosis. This means that antisense compounds inhibiting expression of ELK-1 can be used to treat diseases associated with its expression in animals, particularly humans and to prevent or delay infection, inflammation or tumour formation. The compounds can also be used for diagnosis, as research reagents and in
                        Human ELK-1; p62TCF; Ets domain transcription factor protein; apoptosis; expression inhibition; infection; inflammation; tumour formation; diagnosis; phosphorothioate; antisense compound; ss.
                                                                                                                                                                          /note= "Optionally 2-methoxyethyl (2'-MOE) nucleosides except cytosine residues which are 5-methylcytosine"
                                                                                                                                                                                                                     /*tag= c
/note= "Optionally 2-methoxyethyl (2'-MOE) nucleosides
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antisense compound useful for diagnosis, treatment and prevention of disease associated with ELK-1 expression.
                                                                                                                                                                                                                                            except cytosine residues which are 5-methylcytosine"
                                                                                                                               a
"Internucleoside phosphorothioate linkages"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 18 BP; 8 A; 1 C; 6 G; 3 T; 0 U; 0 Other;
                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 3; Col 39; 31pp; English.
 ELK-1 expression modulator #35.
                                                                                                                                                                                                                                                                                                                        98US-00213767
                                                                                                                                                                                                                                                                                                                                                 98US-00213767
                                                                                                                                                                  Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 93.5.
Best Local 14; Conservative
                                                                                                                                                                                                      15. .18
/*tag=
                                                                                                                1. .18
/*tag=
/note= '
                                                                                                                                                                  ′*tag≔
                                                                                                                                                                                                                                                                                                                                                                         (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                   Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-517959/43.
                                                                                                     Key
modified_base
                                                                                                                                                      modified base
                                                                                                                                                                                                        modified_base
                                                                                                                                                                                                                                                                                                                        17-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                 17-DEC-1998;
                                                                                                                                                                                                                                                                       US5948680-A
                                                                                                                                                                                                                                                                                              07-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                   Baker BF,
                                                                             Synthetic
```

The present invention relates to a method for detecting and identifying Salmonella in food, personal care products e.g. toothpaste, cosmetics and shampoos, pharmaceutical products and/ or water. The present sequence is a nucleic acid probe specific for S. typhimurium 23s rRNA gene. The probe may be used to identify and detect Salmonella with high specificity, using probe hybridisation and PCR

Seguence 18 BP; 4 A; 5 C; 4 G; 5 T; 0 U; 0 Other;

Specific detection of Salmonella in a sample e.g. food or water, comprising using a polynucleotide which hybridizes to a region of the 23S rRNA gene sequence from Salmonella typhimurium.

Wicks B, Percy N, Owen RHG;

WPI; 2000-442395/38.

(CELS-) CELSIS INT PLC

98GB-00027585.

99WO-GB004271.

15-DEC-1999; 15-DEC-1998;

22-JUN-2000.

Disclosure; Page 14; 17pp; English

```
..
                                                                                                                                                                HIV-1 related binding molecule oligonucleotide sequence SEQ ID NO:55.
                            Gaps
                           .;
0
        1.6%; Score 13.4; DB 1; Length 18; 93.3%; Pred. No. 4.4e+02; Live 0; Mismatches 1; Indels
                                                                                                                                                                               Binding molecule, HIV-1; human immunodeficiency virus type reverse transcriptase; binding group; ss.
                                                                                                                                                                                                            immunodeficiency virus 1
                                                                                                            BP.
                                                                                                                                                                                                                                                                          20-JUL-2000; 2000EP-00202611.
                                                                                                                                                                                                                                                                                            20-JUL-2000; 2000EP-00202611.
                                              660 CTCATGCAGCTGAAG 674
ABL88833 standard; DNA; 18
                                                                                                                                              (first entry)
                                                               crcargeagergaag
                                                                                                                                                                                                                                       EP1174518-A1.
                                                                                                                                               22-MAY-2002
                                                                                                                                                                                                                                                         23-JAN-2002.
                                                                                                                                                                                                                     Synthetic
                                                                                                                              ABL88833;
                                                               17
                                                                                            604
                                                                                                  RESULT
                                               à
                                                               엄
```

ö

Gaps

; 0

1.6%; Score 13.4; DB 1; Length 18; 93.3%; Pred. No. 4.4e+02; Live 0; Mismatches 1; Indels

323 CAGAGAAGCTGTGGA 337 CAGAGAAGTTGTGGA 18 AAA64844 standard; DNA; 18 BP

603 RESULT 603
AAA64844/c
ID AAA64

셤

à

23-DEC-2002 . (first entry) significance. ABS98373; RESULT 605 à

```
The present invention describes a collection of binding groups for a family of nucleic acids comprising members of relative high and relative low significance, where the binding groups are selected to be capable to identify, alone or in combination, essentially all members of the family of nucleic acids of relatively high significance. The collection of binding groups is useful for typing of nucleic acid in a clinical sample, by contacting the nucleic acid with the collection and determining whether one or more binding groups bound to the nucleic acid of the sample. This method is useful for determining whether the sample comprises at least a part of a member of relatively high significance of a family of nucleic acids. The collection of binding groups is useful for diagnosing the severity of a disease caused by a pathogen containing a member of a family of nucleic acids. ABL88779 to ABL89321 represent
                                                                                                                                                                                                                                                                                                                           Collection of binding groups for determining or typing samples, especially clinical samples, has groups capable to identify essentially all members of the family of nucleic acids of relatively high
(AMST-) AMSTERDAM SUPPORT DIAGNOSTICS BV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 20; 166pp; English.
                                                                                                           Van Gemen B,
                                                                                                                                                                                                                            WPI; 2002-156696/21
```

Gaps ô 1.6%; Score 13.4; DB 1; Length 18; 93.3%; Pred. No. 4.4e+02; tive 0; Mismatches 1; Indels Sequence 18 BP; 7 A; 2 C; 7 G; 2 T; 0 U; 0 Other; 765 GCAGAACTGGAGAAG 779 Matches 14; Conservative Local Similarity

. 0

ABS98373 standard; DNA; 18 BP. 3 GCAGAACTGGAAAAG 17

NADPH quinone oxidoreductase 2; NQO2; sulfotransferase thermolabile; STM; UDP-glucuronosyl transferase 2B4; UDP-glucuronosyl transferase 2B7; UGT2B7; UDP-glucuronosyl transferase; UGT2B15; urokinase receptor; uPA; multidrug resistance 1; lactortransferatin; orphan nuclear receptor; multidrug resistance associated protein 3; cancer; prostate; actorfoline muscarinir creceptor; CHMR1; CHMR2; CHMR4; CHMR5; altered drug metabolism; cardiovascular function; colorectal tumour; central nervous system; pulmonary; immunological; sequencing. Human; ss; primer; cytochrome P450 Al; CYP4501Al; UGT2B4; MDR1; cytochrome P450 02E; CYP45002El; LTF; cytochrome P450 02E; CYP45002El; LTF; addrencragic receptor betal; ADRR1; aryl hydrocarbon, AHR; MRP3; NR112; aryl hydrocarbon receptor nuclear translocator; ARNT; cathepsin S; cyclooxgenase 2; COX2; diazepam binding inhibitor; DB1; haematological; epoxide hydroxylase 2; EPHX2; 5-lipoxygenase activating protein; FLAP; glutathione-S-transferase 12; GST2; histamine-N-methyl transferase; HNMT; kallikrein 2; KLK2; nicotinanide-N-methyl transferase; NNWT; Human multidrug resistance associated protein 3 sequencing primer #13

0

Gaps .; 0

Indels

0; Mismatches

Local Similarity 93.3%; les 14; Conservative 410 CCAGCAGGCTCTCCG 424 4 ccagcaddcicicic

Best Loca. Matches

ð d ABZ97556 ID ABZ97556 standard; DNA; 18 BP.

RESULT 606

(first entry)

17-0CT-2003 ABZ97556;

WO200257410-A2. Homo sapiens. 25-JUL-2002

This invention relates to the sequence of an isolated mucleic acid
molecule comprising at least one base variation from that of a known
molecule comprising at least one base variation from that of a known
mush of the comprising at least one base variation from that of a known
molecule comprising at least one base variation betal (ADBR1),
cytochrome P450 A21 (CYP4501A1), ddrenargic receptor betal (ADBR1),
cytochrome P450 02E1 (CYP4501A1), aryl hydrocarbon receptor nuclear translocator
aryl hydrocarbon (ARR), aryl hydroxylase 2 (CXX2), diazepam binding
inhibitor (DBI), epoxide hydroxylase 2 (CXX2), diazepam binding
crotein (FLAP), glutathione-5-transferase 12 (GST12), histamine-N-methyl
transferase (HNNT), (ABAILKER) 2 (MRX2), incotinande -N-methyl
transferase (HNNT), (ABAILKER) 2 (MRX2), multidrug resistance 13
sulfotransferase thermolabile (STM), UDP-glucuronsyl transferase 2B4
(UGT2B4), UDP-glucuronsyl transferase 2B7 (UGT2B4), pultidrug resistance 13
(WRX1), lactotransferate (GTM2), multidrug resistance 13
(WRX1), lactotransferate receptor (WRX12), criMX3, CHNR4, or CHNR5) sequence
(WRX2B4), orphan muclear receptor (WRX12), multidrug resistance 13
(WRX1), lactotransferase for locating and characterising the genes that
are responsible for specific traits within the genome and eventually
creceptor 1, 2, 3, 4, or 5 (GTMR1), GHNR2, CHNR4, CTMR5, GENRA, CHNR5) sequence
contained to their esq., overexpression, constitutive
are responsible for taspecific ordinal for alcered drug
craits as a result of their esq., overexpression, constitutive
confort treating the disorders. The mucleic acid molecules comprising the
polymorphic sequences contained in CYP4501A1, CYP4501A2,
ANR, MDR1 and/or MDR3 are useful for screening individuals for alcered drug
consecutivity to coloreral tumours, in DR10 correal individuals for alcered contral
cused to screen for allered cardiovacular function, in CYP4501A1, CYP4501A2,
immunological or haematological function, in KRX2 for altered central
consecutivity in the prostate, in LPF for alte Isolated nucleic acid molecules having polymorphisms in known human genes eg. cyrochrome p450 and cathepsin S useful as genetic linkage markers for locating, identifying and characterizing the genes responsible for disorder-related traits. 1.6%; Score 13.4; DB 1; Length 18; 93.3%; Pred. No. 4.4e+02; Sequence 18 BP; 2 A; 7 C; 4 G; 5 T; 0 U; 0 Other; Example 24; Page 151; 714pp; English. 28-NOV-2001; 2001WO-US044838. 28-NOV-2000; 2000US-00724389. (DNAS-) DNA SCI LAB INC WPI; 2002-698522/75. Hall J; Guida M, Query Match

N_BstNBI; DNA purification; ds; site-specific nicking

Generated 18 nucleotide region aaa.

```
Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or
                            Human, antisense; lung dysfunction, nasal airway dysfunction, antinflammatory steroid; ubiquinone; antinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodiation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.
                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 12798; 872pp; English.
          Human IL5-R oligonucleotide sequence.
                                                                                                                                                                                                                                             Li Y, Sandrasagra A, K.
Tang L, Shahabuddin S;
                                                                                                                                                                             23-APR-2002; 2002WO-US013135.
                                                                                                                                                                                                  24-APR-2001; 2001US-0286137P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     477 CTTGGCATTCCTCAG 491
                                                                                                                                                                                                                       (EPIG-) EPIGENESIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                              WPI; 2003-229219/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                 WO200285308-A2
                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14;
                                                                                                                                                       31-OCT-2002
                                                                                                                                                                                                                                                                                                                                        ubiquinone
                                                                                                                                                                                                                                                         Miller S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                              Nyce JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
ò
```

Creating a target single-stranded region in double-stranded DNA for creating expression vectors or attaching detection probes by subjecting the nicked DNA to conditions where the target region is selectively

Example 1; Page 6; 34pp; English.

denatured

Aguilar D;

Pabalan J,

Katz E,

Menin JF;

Jack WE, Schildkraut I, WPI; 2003-416989/39

(NEWE) NEW ENGLAND BIOLABS INC.

15-DEC-2000; 2000US-00738444. 15-DEC-2000; 2000US-00738444.

JS2003022317-A1.

Synthetic

30-JAN-2003.

```
Homo sapiens; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9703192-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAT51286;
                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAT51286/
                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonuclectide antisense to the intitation codon, coding regaion, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antiallargic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a cuse in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiple amendory steroid in a subject, for reducing levels of adenosine of ceptor, producing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing levels of ubiquinone or lung inflammation, lung allergies, or a respiratory disease or condition.

Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.6%; Score 13.4; DB 1; Length 18; 33.3%; Pred. No. 4.4e+02; ve 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 18 BP; 2 A; 6 C; 3 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  crrecentricricae 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACA74429 standard; DNA; 18
```

(first entry)

11-AUG-2003

ACA74429;

ACA74429 ID ACA7 XX AC ACA7 XX DT 11-A

RESULT 607

```
ö
                                                                                                                                                                                                                                                                                                                                              The invention relates to a method of creating a target single-stranded region in double-stranded DNA that comprises: (a) nicking at least one site bordering the target region in double-stranded DNA with at least one site-specific nicking endonuclease; and (b) subjecting the nicked DNA to conditions where the target region is selectively denatured. The method is useful for creating expression vectors, attaching detection probes or purifying DNA molecules containing the single-stranded region. The present sequence represents a generated DNA region of 18 or 12 nucleotides in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Autosomal dominant early-onset Alzheimer's Disease; AD4; STM2; neurodegeneration; senile dementia; human chromosome 1; Volga German kindred; VG; yeast artificial chromosome library; expressed sequence tag database; polymerase chain reaction; PCR primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 13.4; DB 1; Length 18; Pred. No. 4.4e+02; 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 18 BP; 5 A; 5 C; 4 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human AD4 gene PCR primer INT1R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96WO-US011386.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1,68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           439 GICTAAAGCCAGAIG 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 93.3%;
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 GTCTAAACCCAGATG 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAT51286 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-NOV-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUL-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-JAN-1997
```

(DARW-) (VAME-) (GEHO)

```
This PCR primer is used for allele specific amplification (ASA) of the allelic variant of the serotonin 5HT7 receptor (5HT7leu). This is used for screening large numbers of samples for 5HT7leu variant. The invention provides a method for detecting DNA that codes for a 5HT7leu allelic variant which comprises amplifying human DNA with primers capable of amplifying a sequence encoding the third intracellular loop of the human 5HT7 gene and determining if the amplified DNA comprises a sequence in which a C-to-T alteration converts a Pro codon to a Leu codon. The 5HT7leu variant and associated DNA and assays provide important investigative tools for both behavioural research and the screening of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel human protein; NOVla; NOVlb; NOVlc; NOVld; NOVle; NOV2a; NOV2b; NOV3a; NOV4a; NOV5a; NOV6a; NOV6b; NOV6b; NOV7b; NOV1b; NOV1lb; NOV1lb; NOV1lc; NOV1ld; NOV1ld; NOV1ld; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; NOV1la; 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New NOVX polypeptide, useful for preparing a composition for treating or preventing e.g., cancer, neurodegenerative disorders such as Parkinson's disease, or metabolic disorders such as diabetes or obesity, or for tissue typing.

    is associated with
neuropsychiatric drugs.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Catterton E,
             Linnoila M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
1.6%; Score 13.4; DB 1; Length 19;
Best Local Similarity 93.3%; Pred. No. 4.8e+02;
Matches 14; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NOVX gene analysing primer-probe set Ag5950 reverse primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 19 BP; 3 A; 6 C; 3 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                 receptor gene
for screening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Taupier RJ,
             Koulu M,
             Pesonen U,
                                                                                                                                                                         Allelic variant of serotonin 5HT7 alcoholic offenders and is useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zhong M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neuropsychiatric drug candidates
                                                                                                                                                                                                                                                                                                          7; 11pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACC78345 standard; DNA; 19 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-NOV-2001; 2001US-0348283P.
21-NOV-2001; 2001US-0332152P.
29-NOV-2001; 2001US-0334300P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-NOV-2001; 2001US-0333072P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198 AGTTTCCTGGGTTCC 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-NOV-2002; 2002WO-US035473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-NOV-2002; 2002US-00287092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTITCCTGGCTTCC 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
             ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patturajan M,
             Goldman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CURA-) CURAGEN CORP.
                                                                                             WPI; 1998-347310/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-441553/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2003040327-A2.
                                                                                                                                                                                                                                                                                                          Example 2; Col
             Virkkunen M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              primer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kekuda R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACC78345;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 610
ACC78345/c
             EXECUTE EXECUTION OF STREET SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SERVICES SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A genetically isolated group of families with autosomal dominant early-
onset Alzheimer's Disease (AD) has been studied and initial mapping
analyses have predicted the AD4 locus (also known as STM2) resides on
chromosome 1. The present sequence corresponds to a PCR primer which was
used during the cloning procedure to isolate and sequence the AD4 gene.
The group of families has been dessignated the Volga German (VG) kindreds.
The entire gene has been amplified from VG individuals and unaffected
individuals (from VG and unrelated lineages). Sequence analysis has shown
that affected individuals have a nucleotide change at codon 141 resulting
in an amino acid alteration from Asn to 11e. Portions of a mutant AD4,
especially one in which Asn at position 141 has been replaced by 11e, can
be used in a peptide vaccine. Detection of mutant AD4, for example using
antibodies specific for the protein or using nucleic acid probes specific
for the mutant gene, provides a means of diagnosing Alzheimer's disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New Alzheimer's disease related gene, AD4 - used to develop prods. for detecting pre-disposition to or for diagnosis, prevention or treatment of Alzheimer's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Allelic variant; serotonin 5HT7 receptor; alcoholic offender; 5HT7leu; neuropsychiatric drug; screening; allele specific amplification; ASA; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Serotonin 5HT7 receptor allelic variant amplifying ASA upper primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                     Bird TD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.6%; Score 13.4; DB 1; Length 19; larity 93.3%; Pred. No. 4.8e+02; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                     Wasco W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19 BP; 6 A; 2 C; 10 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                     Schellenberg GD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 11; 83pp; English
    95US-0000956P.
95US-0001675P.
95US-0002174P.
95US-0002328P.
                                                                                                                                                                                                                 DARWIN MOLECULAR CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96US-00745269.
                                                                                                                                                                                                                                                         VA MEDICAL CENT.
GEN HOSPITAL CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17 crerecerciecee 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAV29497 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                 E, Tanzi RE,
, Galas DJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             418 CTCTCCGGCTGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1997-119048/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 14; Conserv
07-JUL-1995;
28-JUL-1995;
11-AUG-1995;
14-AUG-1995;
                                                                                                                                                                                                                                                                                                                                                                                 Levy-Lahad E
Mulligan J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-AUG-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-NOV-1996;
```

Li L;

US5763183-A 09-JUN-1998

Synthetic

AAV29497;

RESULT 609 AAV29497

Best Loca Matches

ö

Gaps

8 X C C C C C C C C C X S

.

```
kits for in vitro or in vivo delivery of siNA; (3) conjugates and/or complexes of siNA, and (4) vectors that express siNA. SCD inhibiting siNAs have anorectic, antidiabetic, antiarteriosclerotic, cytostatic and virucide activities. The siNAs can be used to modulate expression of SCD denes, in cells, tissue explants or organisms, e.g. for treating obesity; diabetes (types I and II); atherosclerosis; cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD siNA, which is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention describes a short interfering nucleic acid (siNA) that downregulates expression of the SCD (stearoy)-COA desaturase) gene by RNA interference. Also described: (1) modulating expression of SCD genes in cells, tissue explants or organisms by introduction of siNA; (2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        short interfering nucleic acid; siNA; downregulation; inhibition; SC stearoyl-CoA desaturase; RNA interference; anorectic; antidiabetic; antiarteriosclerotic; cytostatic; virucide; obesity; diabetes; atherosclerosis; cancer; viral infection; drug screening; genetic engineering; pharmacogenomic; gene mapping; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diagnosis of obesity or diabetes, downregulates expression of the stearoyl-CoA desaturase gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.6%; Score 13.4; DB 1; Length 19; 93.3%; Pred. No. 4.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Stearoyl-CoA desaturase siNA oligonucleotide SEQ ID NO:235.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 19 BP; 6 A; 9 C; 4 G; 0 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 3; SEQ ID NO 235; 139pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ц,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-FEB-2002; 2002US-0358580P.
11-MAR-2002; 2002US-0363124P.
06-UUN-2002; 2002US-0386782P.
29-AUG-2002; 2002US-0406784P.
05-SEP-2002; 2002US-0408378P.
09-SEP-2002; 2002US-0408378P.
20-SEP-2002; 2002US-0412304P.
15-JAN-2003; 2003US-0440129P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-FEB-2003; 2003WO-US004317.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        136 CTGCTTTGGGGGCTG 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Moswiggen J, Beigelman L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADE27291 standard; RNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (RIBO-) RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18 crecrrrececere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-721687/68.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003070885-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ma.
Local Si...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADE27291;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADE27291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 \pm 6 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ដ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ô
                                                                          The invention relates to novel human proteins and encoding polynucleotides. The novel polynucleotides are NoVIa, bloyld, NoVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, NOVIG, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes a short interfering nucleic acid (siNA) that downregulates expression of the SCD (stearoyl-COA desaturase) gene by RNA interference. Also described: (1) modulating expression of SCD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             short interfering nucleic acid; siNA; downregulation; inhibition; SCD; stearcyl-CoA desaturase; RNA interference; anorectic; antidiabetic; antiarteriosclerotic; cytostatic; virucide; obesity; diabetes; atherosclerosis; cancer; viral infection; drug screening; genetic engineering; pharmacogenomic; gene mapping; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New short interfering nucleic acid, useful e.g. for treatment and diagnosis of obesity or diabetes, downregulates expression of the stearoyl-CoA desaturase gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.6%; Score 13.4; DB 1; Length 19; 93.3%; Pred. No. 4.8e+02; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Stearoyl-CoA desaturase sinA oligonucleotide SEQ ID NO:525.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 19 BP; 6 A; 5 C; 4 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 3; SEQ ID NO 525; 139pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Thompson
        Example B; Page 171; 184pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-FEB-2002; 2002US-0358580P.

11-MAR.2002; 2002US-0363124P.

06-JUN-2002; 2002US-0366782P.

29-AUG-2002; 2002US-0406784P.

05-SEP-2002; 2002US-0408378P.

09-SEP-2002; 2002US-0409293P.

20-SEP-2002; 2003US-041334P.

15-JAN-2003; 2003US-04129P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             878 CATTGAGGTCCTGCA 892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2003WO-US004317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Beigelman L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATTGAGTTCCTGCA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADE27581 standard; RNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (RIBO-) RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-721687/68.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003070885-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mcswiggen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-FEB-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADE27581;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADE27581/
XX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE27581/
XXX ADE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
```

a

ð

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to biochemical processes that are carried out directly on a substrate using novel assemblies which hold the substrate, and also one or more reaction chambers located over target location(s) on the substrate. The assemblies, devices and reaction containment member are useful to perform chemical reactions on substrates having target procation(s) containing a biological sample, especially to analyse for the presence of a biomolecule in a sample, or to analyse a biomolecule in a sample, or to analyse a biomolecule to obtain information concerning its identity or structural/functional properties. They are useful e.g. in medical diagnosis and screening (e.g. to diagnose a genetic disorder by detecting a particular nucleic acid polymorphism, or to diagnose infection by detecting characteristic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Assemblies for conducting chemical reactions on substrates useful e.g. in disease diagnosis or drug discovery, in which one or more reaction chambers are held over target locations on substrate enabling retention
kits for in vitro or in vivo delivery of siNA, (3) conjugates and/or complexes of siNA; and (4) vectors that express siNA. SCD inhibiting siNAs have anorectic, antidiabetic, antiatreriosclerotic, cytostatic and virucide activities. The siNAs can be used to modulate expression of SCD diabetes (types I and II); atherosclerosis; cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD siNA, which is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Biochemical; substrate; medical diagnosis; screening; genetic disorder; polymorphism; infection; drug screening; binding; therapeutic agents; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Griswold C, Maczuszenko A;
                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                         Length 19;
                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                      Sequence 19 BP; 0 A; 4 C; 9 G; 0 T; 6 U; 0 Other;
                                                                                                                                                                                                                                                                         Score 13.4; DB 1;
Pred. No. 4.8e+02;
5; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bruce P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 3; SEQ ID NO 9; 147pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCR primer CFX 10-F7 #SEQ ID 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Heaney P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADE24141 standard; DNA; 19 BP.
                                                                                                                                                                                                                                                                         1.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-APR-2002; 2002US-0372711P.
24-MAR-2003; 2003US-0457847P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-APR-2003; 2003WO-US011384
                                                                                                                                                                                                                                                                                                                                                         136 CTGCTTTGGGGGCTG 150
                                                                                                                                                                                                                                                                                                                                                                             |:||:::||||| :|
2 cuecumesesesus 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                         Ouery Match
Best Local Similarity 60.vv
Thes 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of reaction products.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Opalsky D, F
A, Woerl R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (SEQU-) SEQUENOM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-877108/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003087410-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Walker SA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADE24141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADE24141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
```

```
elements of a pathogen) or in drug screening (e.g. by detecting binding of a molecule to a receptor and/or functional consequences of such binding to identify therapeutic agents). They are especially useful to conduct multiple different reactions which can be analysed separately and for reactions involving thermocycling, by integration of a thermocycling function within the substrate. They can especially be used to perform a reaction on a target biomolecule such as amplification of a portion of a nucleic acid molecule (e.g. by PCR), or to determine the identity of a nucleic acid molecule assemblies require low volumes of chambers on a substrate surface, assemblies require low volumes of reagents and enable reaction product to be retained for detection/analysis in a defined location, so reducing transfer of reagents and processing time required for performing analysis. When the substrate is adapted for thermocycling, assemblies enable faster heating and cooling of reaction mixtures than with conventional thermal blocks. The current sequence represents a PCR primer used to perform 4-plex PCR. On genomic DNA in an assay to identify polymorphic sites within human related to perform a start of the current sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequences were determined from the ends of chromosome 11-specific cosmids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      by automated sequencing without intermediate subcloning. A sample of 371 DNA sequence fragments were determined and of these, 277 were suitable for STS primer prediction by computer analysis (using the "Primer program available from E.Lander, MIT). The STSs and cosmids were mapped by in situ hybridisation, somatic cell hybrid analysis or both. Using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequencing complex genomes, present as fragments in a cosmid library - L sequencing end-specific nuclectides of each clone then correlating with spatial relationship of cosmid, esp. for mammalian chromosomes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequence sampled mapping; genomic analysis; complex genome mapping; cosmid library; chromosome 11; sequence tagged site; STS analysis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                          1.6%; Score 13.4; DB 1; Length 19; 93.3%; Pred. No. 4.8e+02; rive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chromosome 11 (locus D11S1103) STS primer cSRL-3h7-tZ.
                                                                                                                                                                                                                                                                                                                                                                                                       Seguence 19 BP; 6 A; 1 C; 8 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SALK ) SALK INST BIOLOGICAL STUDIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 4; Page 72; 128pp; English.
                                                                                                                                                                                                                                                                                                                                                                genes related to cystic fibrosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAQ82234 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94WO-US006810.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93US-00078471.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               762 ATGGCAGAACTGGAG 776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5 ATGGGAGAACTGGAG 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 93.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Evans GA, Smith MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1995-036508/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-JUN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .5-JUN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9429486-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               22-DEC-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-MAR-2003
06-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAQ82234;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAQ82234
               $$$$$$$$$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
В
```

ö

```
sequence (TCS) and a stem duplex consisting of a 5, arm sequence of 3-25 nucleotides adjacent to and covalently linked to the 5 terminus of TCS and a 3-25 nucleotides adjacent to and covalently linked to the 3-25 nucleotides adjacent to and covalently linked to the 3-25 nucleotides adjacent to and covalently linked to the 3-25 nucleotides adjacent to and covalently linked to the 3-25 nucleotides adjacent to and covalently linked to the 3-25 nucleotides adjacent to and covalently linked to the 3-25 nucleotides adjacent to and covalently linked to the 3-25 nucleotides adjacent to an ember of the pair is conjugated to the probe in the vicinity of the 3-2 arm sequence and the members of the pair are near each other. Under the preselected assay conditions in the absence of target sequence, the probe has a characteristic signal whose level is a function of the degree of interaction of the first and second labels, the signal having a first level at 10 deg.C below the Tm, a second level at 10 deg.C above the Tm assay conditions at the detection temperature under the presence of an excess of target, hybridisation of the TCS to the target sequence alters
this method, 370 STSs specific for human chromosome 11 were generated and most of them were regionally mapped. This procedure illustrates a novel method for sequencing complex genomes, designated "sequence sampled mapping". The sequence sampled mapping method is useful for the completion of high density sequence-based maps, and ultimately, for the complete sequencing of genomic DNA directly from cosmid clones. See AAQ82001-Q82706 for STS primers. (Updated on 25-WAR-2003 to correct PN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Labelled probes for nucleic acid detection - have self-complementary stem duplex region which is lost upon hybridisation to target sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Stem duplex; target complementary sequence; fluorescer; quencher; EDANS; babCYL; interactive label; HIV-1; integrase; human immunodeficiency virus type 1; hybridisation probe; PCR; polymerase chain reaction; ss.
                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                      ..
o
                                                                                                                                                                                                                            Length 20;
                                                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                   Sequence 20 BP; 5 A; 2 C; 9 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                        Score 13.4; DB 1;
Pred. No. 5.1e+02;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (PUBL-) PUBLIC HEALTH RES INST NEW YORK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HIV-1 integrase gene target PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 7; Page 22; 41pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lizardi PM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAT45325 standard; DNA; 20 BP
                                                                                                                                                                                                                            1.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96EP-00303544,
                                                                                                                                                                                                                                                                                                          825 GGTGCTGAAGCTGGT 839
                                                                                                                                                                                                                                                                                                                                                 GGTGCAGAAGCTGGT 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                   14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tyagi S, Kramer FR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1997-013705/02.
                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-MAY-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-DEC-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EP745690-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAT45325;
                                                                                                                                              field.)
                                                                                                                                                                                                                                                                      Matches
  8888888888888888
                                                                                                                                                                                                                                                                                                                                               염
                                                                                                                                                                                                                                                                                                          à
```

```
·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This is a reverse PCR primer designed for use with a forward primer (see AAV52657) in the PCR amplification of exon 1b and the flanking introns (see AAV52655) of the human hepatocyte nuclear factor-4 alpha (HNF-4 alpha) gene (see AAV52687). Mutations of the HNF-4 alpha gene have been identified by amplifying (see AAV5265-86) and sequencing the appropriate exon. The invention concerns the identification of genes responsible for non-insulin dependent diabetes mellitus (NIDDM) for use in diagnostics and theraspettics. It demonstrates that the MODY1 (maturity-onset diabetes of the young) locus is the HNF-4 alpha gene. Analysis of mutations in the HNF-4 alpha gene can be diagnostic for diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Isolated nucleic acid encoding hepatocyte nuclear factor 1-alpha and 1-beta - useful for detecting susceptibility for non-insulin dependent diabetes, especially maturity-onset diabetes of the young.
the level of the characteristic signal from the third level toward the second level by an amount of at least 10% of the difference between the first and second levels and where a duplex of the target and its TCS is larger than the stem duplex. A specific example of such a probe was designed to hybridise to a HIV-1 integrase gene target. The target sequence was amplified using PCR primers having the sequences given in AAT45324 and AAT45325
                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hepatocyte nuclear factor 4 alpha; HNF-4 alpha; MODY1; human; transcription factor; maturity onset diabetes of the young; TCF14; diabetes; NIDDM; diagnosis; therapy; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hepatocyte nuclear factor 4 alpha gene exon 1b reverse PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Menzel
                                                                                                                                                                       1.6%; Score 13.4; DB 1; Length 20; 93.3%; Pred. No. 5.1e+02; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ľ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Furuta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 4 A; 7 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                        Sequence 20 BP; 6 A; 4 C; 5 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kaisaki PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 3; Page 112; 363pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96US-0025719P.
96US-0028056P.
96US-0029679P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oda N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97WO-US016037.
                                                                                                                                                                                                                                             487
                                                                                                                                                                                                                                                                                                                                                     668/c
AAV52668 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                             473 GGAACTTGGCATTCC
                                                                                                                                                                                                                                                                            20 GGAATTTGGCATTCC
                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yamagata K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ARCH-) ARCH DEV CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1998-271667/24.
                                                                                                                                                                                         Local Similarity
es 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9811254-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-MAR-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                    21-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Horikawa Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                     AAV52668;
                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bell GI,
                                                                                                                                                                                                                                                                                                                                   616
                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                  AAV52668/
ID AAV5
                                                                                                                                                                                                                                                                                                                                                                                   888888888
                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                        엄
```

1.6%; Score 13.4; DB 1; Length 20;

Query Match

ò

```
Vaccine, eye disease, conventional trachoma, nonendemic trachoma; paratrachoma; inclusion conjunctivitis; genital disease, perihepatitis; nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer; bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
                                                                                                                                                                                                              PCR primer used to amplify an ORF of Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genome sequence of Chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97FR-00015041.
97FR-00016034.
98US-0107077P.
                                                                                                               AAZ03026 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAS08838 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-IB001939
787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             463 AAGAGCICCAGGAAC 477
                             m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGAGCTACAGGAAC 4
                                                                                                                                                                                07-OCT-1999 (first entry)
                    GGAGAAGATGTGTGA
773 GGAGAAGAAGTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                               chlamydia trachomatis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-371125/31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                WO9928475-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                               27-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-DEC-1997;
04-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                10-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Griffais R;
                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                             AAZ03026;
                               17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 619
                             a
                                                                                                                 d
                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAVS6657-V56666 are oligonucleotides which are complementary to at least one part of mRNA encoding human Stat-6 and are capable of inhibiting expression of Stat-6. Such oligonucleotides can be used in therapeutics for the treatment of a disease modulated by Stat-6, particularly for inhibiting the induction and maintenance of allergic-asthmatic reaction, e.g. for treating asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /*tag= c
/notes "Nucleotides are 2'-methoxyethoxy-modified 2'-
deoxynucleotides or can be linked by phosphorothioate
internucleoside linkages"
                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Nucleotides are 2'-methoxyethoxy-modified 2'-deoxynucleotides or can be linked by phosphorothioate internucleoside linkages"
                 Gaps
                                                                                                                                                                                                                                                                                                Stat-6; signal transducers and activators of transcription; primer; antisense; inhibitor; therapy; allergy; asthma; treatment; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40
                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag= a
/note= "nucleotides linked by phosphorothioate
internucleoside linkages"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New antisense oligonucleotides - have sequence complementary encoding human Stat-6 for inhibiting expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
1.6%; Score 13.4; DB 1; Length 20;
Best Local Similarity 93.3%; Pred. No. 5.1e+02;
Matches 14; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Graham
Pred. No. 5.1e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 4 A; 8 C; 1 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Phillips JA, Herlaar HC,
                                                                                                                                                                                                                                                                  Human Stat-6 antisense oligonucleotide #5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (NOVS ) NOVARTIS AG.
(NOVS ) NOVARTIS-ERFINDUNGEN VERW GES MBH.
                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 26; Page 13; 21pp; English
                                                                                                                                                                  BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-EP001400
   Best Local Similarity 93.3%;
Matches 14; Conservative
                                                  144 GGGGCTGCAGCTCCA 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97GB-00005212
                                                                                  ~
                                                                                                                                                                  AAV56661 standard; DNA; 20
                                                                                                                                                                                                                                   (first entry)
                                                                                  GAGGCTGCAGCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                            *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hill SJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1998-520810/44.
                                                                                                                                                                                                                                                                                                                                                                                                    Key
modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    modified base
                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9840478-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-MAR-1997;
                                                                                                                                                                                                                                   02-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nicklin PL,
                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                16
                                                                                                                                                                                                   AAV56661;
                                                                                                                                    RESULT 617
                                                                                                                                                      AAV56661/
```

```
ö
                                                PCR primers AAZ01426-Z06209 were used to amplify open reading frames (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs accode polygeptides (see AAX36754-273799) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis; genital diseases such as nongonococcal uretritis, epidymitis, cervicitis, salpingitis, perihepatitis, bartholinitis; pneumopathy in breast feeding infants; and venereal lymphogranulomatosis. The polypeptides of the invention may be of use in treating these
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.6%; Score 13.4; DB 1; Length 20; 93.3%; Pred. No. 5.1e+02; ative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 2 A; 6 C; 4 G; 8 T; 0 U; 0 Other;
Disclosure; Page 1573; 1755pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAS08838,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AASO8838/
ID AASO
XX
AC AASO
XX
```

ö

Gaps

ò

```
Johns MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAD21081;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAD21081,
 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                             The sequence represents a splice site within a DNA molecule encoding human PD-ATP-binding cassette (PD-ABC) protein. PD-ABC maps to chromosome 19p13.3 and is expressed in various tissues including spleen, thymus, peripheral blood leukocytes, bone marrow and lymph nodes. The PD-ABC DNA molecules and proteins are used to diagnose and treat cardiovascular disorders, infilammatory disorders, dyslipidaemia, epilepsy, diseases related to abnormal calcium flux, coronary artery disease, Tangier's disease, familial high-density lipoprotein deficiency, atherosclerosis, diabetes, fatty liver disease, inculn resistance, obesity, alcoholism, retinal degeneration, hypertension and vascular disease. The sequences are also used in drug screening assays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PD-ATP-binding cassette, PD-ABC, chromosome 19p13.3; spleen, thymus; ds; peripheral blood leukocyte; bone marrow; lymph node; dyslipidaemia; cardiovascular disorder; inflammatory disorder; abnormal calcium flux; epilepsy; coronary artery disease; Tangier's disease; atherosclerosis; familial high-density lipoprotein deficiency; fatty liver disease; atherosclerosis; diabetes; insulin resistance; obesity; drug screening;
                                               PD-ATP-binding cassette; PD-ABC; chromosome 19p13.3; spleen; thymus; ds; peripheral blood leukocyte; bone marrow; lymph node; dyslipidaemia; cardiovascular disorder; inflammatory disorder; abnormal calcium flux; epilepsy; coronary artery disease; Tanglar's disease; atherosclerosis; familial high-density lipporcein deficiency; fatty liver disease; atherosclerosis; diabetes; insulin resistance; obesity; drug screening; alcoholism; retinal degeneration; hypertension; vascular disease.
                                                                                                                                                                                                                                                                                                                                                                                     New Human PD-ABC DNA molecules and proteins for diagnosis and treatment of dyslipidemia, epilepsy and diseases related to abnormal calcium flux.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.6%; Score 13.4; DB 1; Length 20; 33.3%; Pred. No. 5.1e+02; ve 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 2 A; 7 C; 5 G; 6 T; 0 U; 0 Other;
                          form 2 DNA exon 15 5' splice site.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human PD-ABC form 1 DNA exon 15 5' splice site.
                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 39; 77pp; English.
                                                                                                                                                                                                                                                                                                                                  Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                     23-JAN-2001; 2001WO-US002191
                                                                                                                                                                                                                                                               24-JAN-2000; 2000US-0177889P
30-JUN-2000; 2000US-0215405P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            411 CAGCAGGCTCTCCGG 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAS08747 standard; DNA; 20
                                                                                                                                                                                                                                                                                                      (WARN ) WARNER LAMBERT CO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
26-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 93.3
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 CAGCAGGCTCTGCGG
                                                                                                                                                                                                                                                                                                                                 Tafuri SR,
                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-442259/47.
                                                                                                                                                                                    WO200153490-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-SEP-2001
                            PD-ABC
                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                              26-JUL-2001.
                                                                                                                                                                                                                                                                                                                                  Johns MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS08747;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                            Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 620
AAS08747/c
ð
```

```
The sequence represents a splice site within a DNA molecule encoding human PD-ATP-binding cassette (PD-ABC) protein. PD-ABC maps to chromosome 19913.3 and is expressed in various tissues including spleen, thymus, peripheral blood leukocytes, bone marrow and lymph nodes. The PD-ABC DNA molecules and proteins are used to diagnose and treat cardiovascular disorders, inflammatory disorders, dyslipidaemia, epilepsy, diseases related to abnormal calcium flux, coronary arrery disease, Tampier's disease, familial high-density lipoprotein deficiency, atherosclerosis, diabetes, fatty liver disease, insulin resistance, obesity, alcoholism, retinal degeneration, hypertension and vascular disease. The sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New Human PD-ABC DNA molecules and proteins for diagnosis and treatment of dyslipidemia, epilepsy and diseases related to abnormal calcium flux.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wnt4 RT-PCR primer #2 used in the method for modulating hair growth.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Signal transduction, Wnt protein, dermal papilla, DP; beta-catenin, GSK3beta kinase, genetic pattern baldness; hormonal disorder; chemotherapy, anagen phase, hair growth promoter; RT-PCR primer; ss.
alcoholism; retinal degeneration; hypertension; vascular disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.6%; Score 13.4; DB 1; Length 20; 93.3%; Pred. No. 5.1e+02; very 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20 BP; 2 A; 7 C; 5 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          are also used in drug screening assays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 37; 77pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wang M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВЪ
                                                                                                                                                                                                                                                                                                                                                 24-JAN-2000; 2000US-0177889P. 30-JUN-2000; 2000US-0215405P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-MAR-2000; 2000US-0193771P.
12-JAN-2001; 2001US-0261690P.
                                                                                                                                                                                                                                                                               23-JAN-2001; 2001WO-US002191.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAR-2001; 2001WO-US010164.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 411 CAGCAGGCTCTCCGG 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD21081 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                      (WARN ) WARNER LAMBERT CO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GEHO ) GEN HOSPITAL CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20 cascasscrereces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Tafuri SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-442259/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                         WO200153490-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200174164-A1
                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-OCT-2001.
                                                                                                                                                                                                            26-JUL-2001
```

ö

```
The present invention relates to promoting hair growth in a subject which involves inducing or mimicking the effect of Wnt-promoted signal cransduction in a subject and inhibiting hair growth in a subject involves inhibiting level of Wnt protein or inhibiting an effect of Wnt-promoted signal transduction in a subject. The invention is used for prowiding and maintaining dermal papilla (DP) cell graft which involves culturing a DP cell from a subject under conditions that induce or mimic the effect of Wnt-promoted signal transduction, thereby providing and maintaining a DP cell graft. Preferably, the DP cell is cultured in the presence of Wnt, its fragment or analogue; lithium chloride, beta-catenin and/or LER!, an agent which inhibits beta-catenin phosphorylation or and/or LER!, an agent which inhibits beta-catenin phosphorylation or canging promote in subject's scalp, or face e.g., beard and/or mustache, or in conditions where subject suffers from genetic pattern cateriors, suffers from a hormonal disorder which decreases hair growth, or aduation or has received a treatment, e.g., radiation or hemotherapy, or a drug which is in need of hair growth. Hair growth is inhibited on the growth is useful for maintaining or promoting hair inductive activity.

Inhibiting hair growth is useful for maintaining or promoting anagen phase gene expression in the subject's scalp, face e.g., upper lip and/or chin. The present sequence is Wnt4 KP-PCR primer used in the method for modulating hair growth
                                                                                                                        Promoting or inhibiting hair growth in a subject by inducing or mimicking, or inhibiting effect of Wnt-promoted signal transduction,
                          Kishimoto J, Burgeson R, Morgan BA;
                                                                                                                                                                                                                           Disclosure; Page 22; 63pp; English
                                                                        WPI; 2001-648492/74.
                                                                                                                                                                           respectively.
```

Sequence 20 BP; 2 A; 9 C; 2 G; 7 T; 0 U; 0 Other;

0; Gaps Query Match 1.6%; Score 13.4; DB 1; Length 20; Best Local Similarity 93.3%; Pred. No. 5.1e+02; Matches 14; Conservative 0; Mismatches 1; Indels

765 GCAGAACTGGAGAAG 779

GGAGAACTGGAGAAG 1 ð

AAS21716 standard; DNA; 20 BP. (first entry) 21-NOV-2001 AAS21716; RESULT 622 AAS21716

Mouse Survivin antisense oligonucleotide #19.

Survivin; human; mouse; cytostatic; antisense oligonucleotide; hyperproliferative condition; cancer; apoptosis; cytokinesis; ss.

Mus musculus Synthetic WO200157059-A1.

09-AUG-2001

30-JAN-2001; 2001WO-US002939.

02-FEB-2000; 2000US-00496694.

(ISIS-) ISIS PHARM INC.

```
The invention relates to antisense oligonucleotides targeted to a nucleic acid molecule encoding human Survivin, where the antisense oligonucleotide inhibits the expression of human Survivin. These antisense oligonucleotides are used in the treatment of an animal suffering from a disease or condition associated with Survivin, e.g. a therapeutically or prophylactically effective amount of the antisense oligonucleotides can also be used to treat a human suffering from a disease or condition characterised by a reduction in apoptosis comprising administering the antisense oligonucleotide day a reduction in apoptosis comprising administering the antisense oligonucleotide compared by a reduction in apoptosis comprising administering the antisense oligonucleotide to a human. In addition, the antisense oligonucleotide made a cytochocyci chemotherapeutic agent e.g. taxol or cisplatin, can be used to modulate apoptosis, cytokinesis or the cell with the antisense oligonucleotide no modulate apoptosis. Collaborating the cell with the antisense oligonucleotide and a cancer cell by contacting the cell with the antisense oligonucleotides AAS21768 represent Survivin used in the method of the invention
                                                                                                                                                                                                                        Novel antisense compounds for modulating the expression of Survivin and
      Cowsert LM;
Swayze EE,
                                                                                                                                                                                                                                                                                                                                                                                                       Example 18; Page 60; 120pp; English
      Bennett CF, Ackermann EJ,
                                                                                                                  WPI; 2001-488863/53.
                                                                                                                                                                                                                                                                                           treatment of cancer
```

Gaps ö Query Match 1.6%; Score 13.4; DB 1; Length 20; Best Local Similarity 93.3%; Pred. No. 5.1e+02; Matches 14; Conservative 0; Mismatches 1; Indels Sequence 20 BP; 2 A; 9 C; 4 G; 5 T; 0 U; 0 Other;

·;

ð a

AAS13500 standard; DNA; 20 BP. AAS13500; RESULT 623
AAS13500
ID AAS135
XX
AC AAS135
XX
DT 17-DEC
XX
DE PCR P:
XX
MUS E
XX
NO 23-A1
XX
PP 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
PR 16-F
P

ö

PCR primer mVMGLOM-1 used to clone the mouse VMGLOM cDNA.

17-DEC-2001 (first entry)

Mouse; VMGLOM; glomulin; venous malformation glomangioma; PCR primer; ss.

WO200160856-A2.

23-AUG-2001

16-FEB-2001; 2001WO-EP001760

16-FEB-2000; 2000EP-00870022 2000US-0195777P 2000EP-00870320 10-APR-2000; 22-DEC-2000; (UYLO-) UNIV CATHOLIQUE LOUVAIN.

/ikkula M;

WPI; 2001-557643/62.

New VMGLOM genes and polypeptides, useful in gene therapy or for preventing, treating or alleviating disorders with vascular component, e.g. varicosities, cardiopathies, cerebral disorders or cancer.

```
.
0
                                  The present invention relates to the isolation of novel human and mouse Wolfold Polypeptides (long form and short form), and the nucleic acid molecules encoding them. VMGLOMs (also referred to as glowulins) are a subtype of venous malformations (Was) called glomangiomas. In humans, WMGLOM has been mapped to chromosome lp21-22. WMGLOMs and the nucleic acids encoding for them are useful as a medicament or for incorporation into a diagnostic kit. Such medicaments are useful for preventing, treating or alleviating disorders with a vascular component, particularly where alteration of vascular smooth muscle cell phenotype is needed, e.g. varicosities, cardiopathies or cardiomyopathies, cerebral disorders and senere. The nucleic acids are also useful in gene therapy. The present sequence for PCR primer mVMGLOM-1 is used with PCR primer mVMGLOM-5 (AASI3501) to clone the mouse VMGLOM on in the methods of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to the isolation of novel human and mouse VMGLOM polypeptides (long form and short form), and the nucleic acid molecules encoding them. VMGLOMS (also referred to as glomulins) are a subtype of venous malformations (VMS) called glomangiomas. In humans, VMGLOM has been mapped to chromosome 1p21-22. VMGLOMs and the nucleic acids encoding for them are useful as a medicament or for incorporation into a diagnostic kit. Such medicaments are useful for preventing, treating or alleviating disorders with a vascular component, particularly where alteration of vascular smooth muscle cell phenotype is needed, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mouse; VMGLOM; glomulin; venous malformation glomangioma; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New VMGLOM genes and polypeptides, useful in gene therapy or for preventing, treating or alleviating disorders with vascular component, e.g. varicosities, cardiopathies, cerebral disorders or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
                                                                                                                                                                                                                                                                                                                                                                                     Score 13.4; DB 1; Length 20;
Pred. No. 5.1e+02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Forward PCR primer used to amplify total mouse cDNA.
                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other;
  Disclosure; Page 37; 157pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 40; 157pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (UYLO-) UNIV CATHOLIQUE LOUVAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAS13515 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-APR-2000; 2000US-0195777P.
22-DEC-2000; 2000EP-00870320.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        330 GCTGTGGAGCAACTT 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-FEB-2001; 2001WO-EP001760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000EP-00870022
                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 93.3%;
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5 GCTGTGGAGGAACTT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-557643/62.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200160856-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vikkula M;
                                                                                                                                                                                                                                                                                                            invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAS13515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus sp
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
```

```
The present invention describes a method of arraying genome clones. The method comprises: (a) clones of the genomic libraries contained in method comprises: (b) a clones of the genomic libraries contained in multiwell plates; (b) a primer designed based on the chromosome marker is equence is added to the mixture to carry out an amplification reaction; (c) a signal corresponding to the marker is detected from the resultant amplified product to specify the discrimination Nos. of the multiwell plates containing the clones having said marker sequence; (d) the order of the markers is changed so that the same discrimination Nos. succeed to the maximum in the specified discrimination Nos. to array the multiwell plates; (e) the clones in the multiwell plates of the specified discrimination Nos. are mixed respectively in each wells of longitudinal and lateral directions; (f) the mixed clones are cultured and the created from the amplified by using the above primer; (g) signals are detected from the amplified products; (h) the clones in the multiwell plates are specified from the detected result; and (i) the clones are
                                                                                                                                                                                                         ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
varicosities, cardiopathies or cardiomyopathies, cerebral disorders and cancer. The nucleic acids are also useful in gene therapy. The present sequence for forward PCR primer is used with the reverse PCR primer (AAS13516) to amplify total mouse cDNA in the methods of the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  reconstituted as the positions on the chromosome and arrayed. The microarray is useful for gene analysis. ABL42957 to ABL45322 represent PCR primers for human chromosome 198-535 DNA, and ABL45323 to ABL45634 represent PCR primers for human chromosome 21q22.1, which are specifically claimed for use in the present invention
                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                         .
0
                                                                                                                                                             1.6%; Score 13.4; DB 1; Length 20; 93.3%; Pred. No. 5.1e+02; tive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human chromosome 1p36-35 PCR primer SEQ ID NO:1063.
                                                                                                                         Sequence 20 BP; 5 A; 3 C; 7 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 4; Page 26; 528pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                          ABL44019 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-MAR-2001; 2001JP-00068285.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAR-2000; 2000JP-00066716.
                                                                                                                                                                                                                                                330 GCTGTGGAGCAACTT 344
                                                                                                                                                                                                                                                                                    13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (RIKA ) RIKAGAKU KENKYUSHO.
(GENO-) GENOTEX YG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                      14; Conservative
                                                                                                                                                                                                                                                                       5 GCTGTGGAGGAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Arraying genome clones.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-144136/19.
                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JP2001321190-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-NOV-2001.
                                                                                    invention
                                                                                                                                                                                                                                                                                                                                                                                                                                   ABL44019;
                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                   RESULT 625
                                                                                                                                                                                                                                                                                                                                                                       ABL44019
  88888888
                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                    d
```

Seguence 20 BP; 4 A; 4 C; 7 G; 5 T; 0 U; 0 Other;

```
ö
                                                                                                                                                                                       Human; histone deacetylase 1; HDA1; enzyme; hyperproliferative condition;
viral infection; prophylactic; inflammation; phosphorothioate backbone;
tumour; antisense; cytostatic; virucide; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antisense compounds targeted against polynucleotides encoding Histone deacetylase 1 useful for treating hyperproliferative conditions, e.g. cancer of hematopoietic, lymphoid, myeloid or breast, or a viral infection.
                      Gaps
                     ö
1.6%; Score 13.4; DB 1; Length 20; 93.3%; Pred. No. 5.1e+02; ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                /mod_base= OTHER
/note= "Phosphorothioate backbone"
.5
                                                                                                                                                                       Human HDA1 antisense oligonucleotide ISIS #123727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'note= "2' -methoxyethyl residues"
                                                                                                                                                                                                                                                                                                                                  /mod_base= OTHER
/note= "2'-methoxyethyl residues"
                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 3; Page 94; 120pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                        /*tag= f
/mod_base= m5c
16. .20
/*tag= c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag= g
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                /*tag= d
/mod_base= m5c
                                                                                                                                                                                                                                                                                                                                                                                                        mod_base= m5c
                                                                                                              BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-DEC-2000; 2000US-00745167.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-DEC-2001; 2001WO-US046518
                                          797 GCAGGACTGACTGAA 811
                                                            6 gcaggrcrgacrgaa 20
                                                                                                              AAD40946 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 base=
                                                                                                                                                                                                                                                                                                                        Д
                                                                                                                                                                                                                                                                                                                                                                                              ø
          Local Similarity 93.3
                                                                                                                                                                                                                                                                        1. .20
/*tag=
                                                                                                                                                                                                                                                                                                                         *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                             *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wyatt JR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-519880/55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200250244-A2
                                                                                                                                                                                                                                                                        modified base
                                                                                                                                                                                                                                                                                                                modified base
                                                                                                                                                                                                                                                                                                                                                       modified base
                                                                                                                                                                                                                                                                                                                                                                                  modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                 modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                              modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    modified_base
                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                    30-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monia BP,
                                                                                                                                                                                                                                            Synthetic
                                                                                                                                  AAD40946;
    Query Match
             Best Loca
Matches
                                                                                          RESULT 626
                                                                                                    AAD40946
```

```
The present invention relates to antisense compounds, compositions and methods for modulating the expression of Histone deacetylase I (HDAI).
Sequences of the invention are useful for inhibiting the expression of HDAI in cells or tissues and for treating an animal having a disease or condition associated with HDAI e.g., hyperproliferative condition, which is scancer of haematopoletic, lymphoid, myeloid or breast or a condition resulting from a viral infection. Antisense compounds either alone or in cesulting from a viral infection. Antisense compounds either alone or in combination with other antisense compounds or therapeutics can be used as combination patterns of a portion or the entire complement of genes expressed within cells and tissues. They are commonly used as research reagents and diagnostics. They may also be useful prophlactically such as to prevent or delay infection, inflammation or tumour formation. The present DNA sequence is an antisense oligonucleotide targetted to human
                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to averaging gene expression in cDNA library method involves (a) conversion of a double-stranded (ds) cDNA library preparade from an organism-originated mRNA into cyclic single-stranded (ss) DNA library, (b) preparing a biocinylated ds DNA or complementary biotinylated RNA from a ds library DNA; (c) hybridisation of the cyclic ss DNA library with the biotinylated ds DNA or RNA; (d) recovering unhybridised cyclic ss DNA from the biotinylated ds DNA or RNA; (d) recovering their hybridised cyclic ss DNA; ss DNA; and any of their hybridised cyclic ss DNA; and (e) transforming a host call with a ds DNA after forming ds from the thus obtained cyclic ss DNA. The method is for the construction of averaged DNA libraries for application in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene expression; biotinylation; DNA array; nucleic acid detection; rat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Construction of averaged DNA libraries with even appearance frequency each clone, applicable in producing DNA arrays for specific tissues, organs or organisms in disease diagnosis, pathogen identification and
                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                                           / Match 1.6%; Score 13.4; DB 1; Length 20; Local Similarity 93.3%; Pred. No. 5.1e+02; les 14; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                         Seguence 20 BP; 5 A; 4 C; 5 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rat derived nucleotide sequence P1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example; Page 30; 36pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (NNSH ) NIPPON SHINYAKU CO LID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            )593/c
ABL60593 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-OCT-2001; 2001WO-JP009492.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-OCT-2000; 2000JP-00329998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         471 CAGGAACTIGGCATI 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGGCACTIGGCATT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kaminishi Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-417277/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   evaluation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200236764-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rakagaki K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-MAY-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABL60593;
                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABL60593,
             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   원
```

encodes a gene

nodulating the above immune response, where the gene

.. 0

schu568-1.rng

```
The invention relates to a nucleic acid library comprising genes or their fragments which are capable of modulating an immune response observed with airway hyperresponsiveness and/or bronchoalveolar manifestations of asthma. Also included are a method for modulating an immune response of an individual comprising modulating a gene comprising a nucleic acid at least functionally equivalent to a nucleic acid identifiable by a signature sequence (SS) given in the specification such as R1-SO-R1-A11, StO1-A12, and R1-SO-R1-B7, a substance (for use as a medicament) capable of modulating a gene comprising a nucleic acid at least functionally equivalent to a nucleic acid identifiable by SS and the use of a proteinaceous substance derived from a nucleic acid at least functionally equivalent to a nucleic acid identifiable by SS and the use of a proteinaceous substance derived from a nucleic acid at least functionally equivalent (for use as a medicament) against the production of an antagonist (for use as a medicament) against the substance. The antagonist and substance are useful for the treatment of an immune response observed with airway hyperresponsiveness and/or bronchoalveolar manifestations of asthma. The method is useful for
producing DNA arrays for specific tissues, organs or organisms in disease diagnosis, pathogen identification and evaluating drugs and therapies. With the DNA arrays, the detection is sensitive and reliable to give fast feedback of test results. Sequences ABL60899-596 represent nucleotide sequences derived from various rat genes, used in the course of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nucleic acid library comprising genes which are capable of initiation, progression and suppression of an immune response, especially an immune response observed with airway hyper-responsiveness of asthma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCR; primer; ss; nucleic acid library; immune response; asthma; airway hyperresponsiveness; bronchoalveolar manifestation; signature sequence; SS; chronic obstructive pulmonary disease; COPD; allergic disease; rhinitis; atopic dermatitis; urticaria; autoimmune disease; multiple sclerosis; inflammatory bowel disease; allograft rejection; infectious disease.
                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                      .;
0
                                                                                                                                                                                                Length 20;
                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Van Oosterhout AJM;
                                                                                                                                                     Seguence 20 BP; 5 A; 4 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                           1.6%; Score 13.4; DB 1;
93.3%; Pred. No. 5.1e+02;
cive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mouse R1-OS-B1-B2 forward PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Van Bergenhenegouwen BJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 8; Page 76; 120pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                    ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-AUG-2001; 2001WO-NL000610.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-AUG-2000; 2000EP-00202867.
                                                                                                                                                                                                                                                                                      655 GIGITCICATGCAGC 669
                                                                                                                                                                                                                                                                                                                       Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                    ABK47115 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYUT-) RIJKSUNIV UTRECHT
                                                                                                                                                                                                                    Local Similarity 93.3 es 14; Conservative
                                                                                                                                                                                                                                                                                                                            19 Grerrereardeage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2002-241888/29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200214366-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Groot PC,
                                                                                                                 invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABK47115;
                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus sp.
                                                                                                                                                                                                                                                                                                                                                                                           RESULT 628
                                                                                                                                                                                                                                                                                                                                                                                                                888888888
                                                                                                                                                                                                                                                                                        ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to a novel support for ligand immobilization, which is coated with a polyanion which has previously been activated. The Support is useful for the production of DNA chips, protein chips, sugar chips and biosensors for investigative and diagnostic uses. Ligands which can be immobilized to the support include agonists, antagonists, toxins, venoms, virus epitopes, hormones, lectins, hormone receptors, peptides, nucleic acids, drugs, sugars, oligonucleotides, proteins, antigens, monoclonal antibodies, cells, viruses, and avidins. In an example of the invention, the ligand bound to the support is a PCR primer targeted to a number of genes and used to diagnose the presence and potentially the transcription of the genes. This sequence represents a 3' primer targeted to the wingless-type MMTV integration site family member 5a gene
                                                                                                                                                                                                                               ò
       product capable of modulating the immune response. The substance is useful for treating an immune response, particularly asthma, chronic obstructive pulmonary disease (COPD), allergic diseases (frhintis, atopic dermattis, urticaria), autoimmune diseases (e.g. multiple sclerosis), inflammatory bowel disease, allograft rejection and infectious disease. The present sequence is a PCR primer used to amplify and/or characterise a mouse signature sequence of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Polyanion-coated ligand immobilization support for production of DNA chips, protein chips and biosensors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3' primer to amplify wingless-type gene for ligand support method.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Primer; ss; support; ligand immobilization; activated polyanion; DNA chip; protein chip; sugar chip; biosensor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ..
0
                                                                                                                                                                                                                                 ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.6%; Score 13.4; DB 1; Length 20;
ilarity 93.3%; Pred. No. 5.1e+02;
Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                            Length 20;
                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kato
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence 20 BP; 7 A; 3 C; 3 G; 7 T; 0 U; 0 Other;
                                                                                                                                                          Sequence 20 BP; 4 A; 4 C; 9 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                           1.6%; Score 13.4; DB 1;
93.3%; Pred. No. 5.1e+02;
cive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rokushima M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 2; Page 40; 51pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Takeda O,
                                                                                                                                                                                                                                                                                                                                                                                                   ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-SEP-2002; 2002WO-JP009661.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-SEP-2001; 2001JP-00288149
                                                                                                                                                                                                                                                                    409 TCCAGCAGGCTCTCC 423
                                                                                                                                                                                                                                                                                                        Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                   ACC44272 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                Query Match
Best Local Similarity 93.33
Matches 14; Conservative
                                                                                                                                                                                                                                                                                                       TCCAGCAGGCTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TAKA-) TAKARA BIO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-342750/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Imose N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003027674-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Asada K,
                                                                                                                                                                                                                                                                                                                                                                                                                                    ACC44272;
                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                                                                                                                                                                                                                  RESULT 629
                                                                                                                                                                                                                                                                                                                                                                                  ACC44272
                                                                                                                                                                                                                                                                                                                                                                                                                    88888888888888
                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                        d
```

```
haemostatic, antiinflammatory, antiulcer; neuroprotective, antithyroid, antidibatic; dermacological, antipsoritatic; gynaecological, vasotropic, anti-HIV; immune response; inhibitor; serotonin; serotonin receptor; CD-4; CD-8; T cell; B cell; autoimmune disease; fulminant AIDS;
                                                                                                                            Immunomodulator; antirheumatic; antiarthritic; immunosuppressive;
                                                                                                                                                                                                                                                                                         (PHIL-) PHILADELPHIA HEALTH & EDUCATION CORP.
                                                                                                                                                                                                                                                                                                          Tretiakova AS, Albert R,
                                                                                                            5-HT receptor PCR primer SEQ ID No 23.
                                                                                                                                                                      5-HT receptor; PCR; primer; ss
730
                                                                                                                                                                                                                                        29-MAR-2002; 2002WO-US009993.
                                                                                                                                                                                                                                                       30-MAR-2001; 2001US-0280296P.
25-OCT-2001; 2001US-0345295P.
31-JAN-2002; 2002US-0353883P.
                15
                                                          AAL53519 standard; DNA; 20
                                                                                          (first entry)
716 CAAATTTCAGGAGCT
                CAAATTTCATGAGCT
                                                                                                                                                                                                                                                                                                                           WPI; 2003-040619/03.
                                                                                                                                                                                                      WO200278643-A2.
                                                                                                                                                                                      Unidentified
                                                                                           30-JAN-2003
                                                                                                                                                                                                                       10-OCT-2002
                                                                                                                                                                                                                                                                                                           BA,
                                                                           AAL53519;
                                                                                                                                                                                                                                                                                                           Jameson
                                         RESULT 630
                                                  AAL53519
                                                         g
```

Davidson HC;

The invention relates to a discovery that modulating an immune response in a mammal involves administering an inhibitor of the interaction of serotonin with a serotonin receptor. The invention is useful for modulating (e.g. inhibiting) an immune response (such as CD-4 or CD-8 dependent immune response); for inhibiting an immune reaction or response mediated by activation of serotonin receptor on an immune cell (such as T cell and B cell) due to the activation of the serotonin receptor on the cell and B cell) due to the activation of the serotonin receptor on the cell; for modulating an immune response of an autonimune disease (such as myasthenia gravis, idiopathic inflammatory myopathy, chronic neutropenia, rheumatoid arthitis, idiopathic thrombocytopenia purpura, autoimmune haematoid arthitis, idiopathic thrombocytopenia purpura, autoimmune changes, antiphospholiphia antibody syndromes, inflammatory bowel disease, Crohn's disease, unlecrative colitis, myocarditis, Guillain Barre syndrome, 'Duphocytic hypophysitis, Grave's disease, Addison's disease, hypoparathyroidism, type I diabetes systemic lupus erythematus, pemphigus vulgaris, bullous pemphigud, psoriasis, psoriatic arthritis, condometriosis, autoimmune orchitis, autoimmune erectile dysfunction, sarcoldosis, Wegener's granulomatosis, autoimmune deafness, Sjogren's condometriosis, wegener's farial charactical cystitis, development of the condometriosis, interaticial cystitis, doodpasteur's condometriosis, autoimmune orchitis, interatical cystitis, doodpasteur's condometriosis, autoimmune orchitis, interatical cystitis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometriosis, doodpasteur's condometrio syndrome, and fibromyalgia); for inhibiting a secondary immune response, in a mammal (preferably a human); and for inducing apoptosis or death in a cell or affecting a cell cycle process in a cell expressing a serotonin receptor by inhibiting transmission of a serotonin signal via a serotonin polymucleotide sequence raiso useful for treating fulminant AIDS. This polymucleotide sequence represents a 5-HT (5-hydroxytryptamine) receptor amplifying PCR primer relating to the invention Modulating immune response in mammal in treatment of e.g. multiple scalerosis, myasthenia gravis, chronic neutropenia, Crohn's disease, endometriosis, involves administering inhibitor of interaction of serotenin with serotenin receptor. Example 1; Page 74; 172pp; English

ö BCL2-associated X; BAX; nootropic; neuroprotective; antiparkinsonian; anticonvulsant; ophthalmological; antidiabetic; virucide; antisense therapy; BAX antagonist; BAX inhibitor; familial amylotrophic lateral sclerosis; Alzheimer's disease; Parkinson's disease; parkinson's disease; lodgin's disease; cartilage-hair hyperplasia; adiabetes-associated ocular disorder; scrapie infection; aberrant apoptosis; mouse; phosphorothioate; ss. Gaps /note= "phosphorothioate linkages, and all cytidine residues are 5-methylcytidines" Mouse BAX chimeric phosphorothioate oligonucleotide SEQ ID NO:110 ·. 1.6%; Score 13.4; DB 1; Length 20; 93.3%; Pred. No. 5.1e+02; Indels Sequence 20 BP; 6 A; 3 C; 7 G; 4 T; 0 U; 0 Other; /*tag= a /mod_base= OTHER /note= "2'-0-methoxyethyls" 16. .20 Mismatches /*tag= c /mod_base= OTHER /note= "2'-0-methoxyethyls" Location/Qualifiers mod_base= OTHER 0; ADA20937 standard; DNA; 20 BP 495 (first entry) Conservative 481 GCATTCCTCAGGATC 20 gcarrccrcagerrc *tag= Local Similarity les 14; Conser WO2003008543-A2 Key modified_base modified base modified base Mus musculus 20-NOV-2003 Synthetic ADA20937; Query Match RESULT 631 Matches ADA2093 ઠ 셤

17-JUL-2001; 2001US-00908147. 13-JUL-2002; 2002WO-US022417 30-JAN-2003

(ISIS-) ISIS PHARM INC. Watt AT; Zhang H,

WPI; 2003-239321/23.

New antisense compounds, useful for modulating the expression of BCL2-associated X (BAX) protein or for treating a disease or condition associated with BAX protein, e.g. Parkinson's disease, Hodgkin's disease or Alzheimer's disease.

Claim 3; Page 93; 139pp; English.

The present invention describes a compound (I) 8-50 nucleobases in length trargeted to a nucleic acid molecule encoding BCL2-associated X (BAX) protein, where the compound specifically hybridises with the nucleic acid molecule encoding BAX protein and inhibits the expression of BAX protein.

```
The compound specifically hybridises with at least 8-nucleobase portion of an active site on a nucleic acid molecule encoding BAX protein. Also described: (1) a composition comprising (1) and a pharmaceutical carrier or diluent; (2) inhibiting the expression of BAX protein in cells or tissues comprising contacting the cells or tissues with (1); and (3) treating an animal having a disease or condition associated with BAX protein comprising administering to the animal (1) so that expression of BAX protein is inhibited. (1) has nootropic, neuroprotective, and this and to an be used in antisense therapy, and as a BAX artagonist. The antisense compounds (1) are useful for modulating the expression of BAX protein, and for treating a disease or condition expression of BAX protein, e.g. familial amylotrophic lateral session of BAX protein, e.g. familial amylotrophic lateral secondated or a condition that arises from aberrant apoptosis. The compounds are useful as research reagents and in diagnostics. The present sequence represents a mose BAX chimeric phosphorothicate oligonuclectide, which is used in an example from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 20 BP; 4 A; 6 C; 3 G; 7 T; 0 U; 0 Other;
```

Gaps ·, 1.6%; Score 13.4; DB 1; Length 20; 93.3%; Pred. No. 5.1e+02; iive 0; Mismatches 1; Indels 148 CTGCAGCTCCATACT 162 crecaecrecararr 15 Query Match
Best Local Similarity 93.3³
Matches 14; Conservative à g

ô

Therapy; breast cancer; cytostatic; tumour; metastasis; BS136; EST; expressed sequence tag; primer; ss. Primer #15 used to sequence BS136 specific EST clone. AAD61388 standard; DNA; 20 BP (first entry) Unidentified 15-JAN-2004 AAD61388; RESULT

98US-00104750. US2003104364-A1. 25-JUN-1998; 05-JUN-2003.

97US-00882369. BILLINGEL P A. 25-JUN-1997; (BILL/) (COHE/)

COLPITES T L. FRIEDMAN P N. GRANADOS E N. KLASS M R. RUSSELL J C. STROUPE S D. (FRIE/) (GRAN/) (KLAS/) (RUSS/) (STRO/) (COLP/)

Granados EN; Friedman PN, Colpitts TL, Stroupe SD;

WPI; 2003-801225/75.

Novel BS136 polypeptide useful for detecting, diagnosing, staging, monitoring, prognosticating, preventing or treating breast diseases such as breast cancer.

Example 2; Page 47; Opp; English

.; 0 The present invention relates to a novel BS136 polypeptide useful for detecting, diagnosing, preventing and treating breast diseases such as breast cancer. The invention is useful for preventing action of the tissue-specific BS136 polypeptide and for the therapeutic treatment of tumours and metastases. The present sequence is a primer used to sequence Screening, diagnostic and therapeutic methods in individuals with predisposition towards having a cancer, such as colon cancer, using base excision repair pathway or hMYH genes. primer; ss; PCR; human; screening method; hWYH; base excision repair; BER; APC; familial adenomatous polyposis; PAP; multiple colorectal adenoma; carcinoma; bowel cancer. Gaps ; 0 1.6%; Score 13.4; DB 1; Length 20; 93.3%; Pred. No. 5.1e+02; tive 0; Mismatches 1; Indels RT-PCR primer NS1-14F used to amplify the human APC DNA Sequence 20 BP; 2 A; 8 C; 4 G; 6 T; 0 U; 0 Other; (UYWA-) UNIV WALES COLLEGE OF MEDICINE. BP. 02-AUG-2002; 2002WO-GB003591. 03-AUG-2001; 2001GB-00018995. 208 GITCCCAGCCCTCTC 222 1 GTTCCCAGCCCTGTC 15 ADE36276 standard; DNA; 20 (first entry) Query Match
Best Local Similarity 93.3
Matches 14; Conservative BS136 specific EST clone Cheadle JP; WPI; 2003-256601/25. WO2003014390-A2. Homo sapiens. 29-JAN-2004 20-FEB-2003. Sampson JR, ADE36276; 633 RESULT 63 ADE36276 *88888888 à 셤

This invention relates to a novel screening method for identifying an individual having a predisposition towards a cancer. Specifically, it refers to obtaining a test sample, preferably comprising the hMYH gene that occurs in the base excision repair (BER) pathway, and comparing this mucleic acid molecule to the corresponding region of the wild type sequence. This BER pathway gene, hMYH, acts to protect against G:C to T:A transverse mutations in a cancer marker gene such as APC that is seen in hMYH are associated with the onset multiple colorectal adenomas and carcinoma. The present invention describes a screening method for individuals that works to identify differences comprising any one of predisposition, particularly for bowel cancer. This signifies a cancer predisposition, particularly for bowel cancer. This oligomucleotide exemplification of the invention

Example 1; Page 17; 66pp; English.

Sequence 20 BP; 5 A; 4 C; 5 G; 6 T; 0 U; 0 Other;

*

645

CEA;

Query Match

Matches

AAN90456;

RESULT

g

```
The heavy chain variable region of murine MAD 84.66 was cloned as follows: Hybridoma DNA was extracted, completely restricted with ECORI and run on a gel. Fragments were extracted and ligated in the ECORI site of Lambda-ZAP. Phage were packaged and plated. Plaque screening was with a 991bp XbaI fragment from the mouse enhancer region, a 1.5kb cDNA fragment from the heavy chain constant region gene of hybridoma CEA.66-E3 and a 5.4kb ECORI fragment containing an aberrantly rearranged heavy chain fragment conteaining an aberrantly rearranged heavy chain fragion. Infomucleotides and a probe specific to the N-terminal region. This probe was used to allow upstream characterisation of the promoter region. See also AAQ10834-Q10846, AAQ10848 and AAQ11098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dicistronic expression vector; fusion PCR; antibody; cDNA library; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unique 5' PCR primer #7 for kappa light chain variable region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 1.6%; Score 13.2; DB 1; Length 18; Best Local Similarity 83.3%; Pred. No. 4.8e+02; Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                 Novel anti-CEA antibody - comparable to ATCC Accession No. produced by recombinant DNA, used in diagnosis of tumours.
Probe to N-terminal region of MAb T84.66 gamma heavy chain
                                     MAb T84.66; gamma heavy chain; carcinoembryonic antigen;
human adenocarcinoma; mouse-human chimaeric antibody; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 18 BP; 3 A; 7 C; 4 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                         Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 6; 24pp; English
                                                                                                                                                                                                                                                                                                                           Neumaier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      界
                                                                                                                                                                                                             89US-00385102.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92WO-US001475.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660 CTCATGCAGCTGAAGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 crecrecaecreaecre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAQ29050 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                         Riggs AD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (revised)
                                                                                                                                                                                                                                                                                     (CITY ) CITY OF HOPE
                                                                                                                                                                                                                                                                                                                                                               WPI; 1991-073486/10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (STRA-) STRATAGENE
                                                                                               Mus musculus
                                                                                                                                                                                                           26-JUL-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W09215678-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-FEB-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-1991;
                                                                                                                                                                                                                                                                                                                           Shively JE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-MAR-2003
26-FEB-1993
                                                                                                                                   WO9101990-A
                                                                                                                                                                     21-FEB-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-SEP-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAQ29050;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAQ29050
   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oligonucleotide probe (Bg-1B) below, specific for Bacteroides gingivalis, was derived by primer UP4B/1B. It is a species- specific probe that hybridises to the rRNA of B. gingivalis. It is highly sensitive and highly specific for detecting oral pathogons. AAN90419-87 can also distinguish between bacterial species, types and subtypes. (Updated on 25-MAR-2003 to correct PI field.) (Updated on 24-OCT-2003 to standardise OS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oligo-nucleotide probes for detection of periodontal pathogens - comprising a segment of nucleic acid capable of hybridising to bacterial ribosomal RNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                   Bacteroides gingivalis; oligonucleotide probe; periodontal disease; mouth diseases; rRNA; species-specific.
                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.6%; Score 13.2; DB 1; Length 18;
larity 83.3%; Pred. No. 4.8e+02;
Conservative 0; Mismatches 3; Indels
     Length 20;
                                                                                                                                                                                                                                                                                                                                                                 Oligonucleotide probe specific for Bacteroides gingivalis.
                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seguence 18 BP; 3 A; 7 C; 3 G; 5 T; 0 U; 0 Other;
1.6%; Score 13.4; DB 1;
ilarity 93.3%; Pred. No. 5.1e+02;
Conservative 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dix K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Watanabe SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 7; Page 43; 53pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              216 CCCTCTCCAGAAGTGACG 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18
                                                                                                                                                                                                             AAN90456 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89WO-US000072
                                                                               146 GGCTGCAGCTCCATA 160
                                                                                                     3 GGCTGCAGCTTCATA 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cerrerecedaderrace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAQ10847 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Schwartz DE, Kanemoto RH,
                                                                                                                                                                                                                                                                                                         (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Porphyromonas gingivalis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MICR-) MICROPROBE CORP
                                                                                                                                                                                                                                                                                         (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1989-233857/32
                       Local Similarity
les 14; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
es 15; Conserv
                                                                                                                                                                                                                                                                                     24-OCT-2003
25-MAR-2003
03-NOV-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-JAN-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-JAN-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-MAY-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-JUL-1989
```

Query Match

Matches

à

AAQ10847;

RESULT 635

ö

Gaps

. 0

BH 8747,

```
..
0
                                                                                                                                               This inside PCR primer is used in fusion PCR, working in combination with an outside PCR primer to amplify a target mucleic acid sequence, in this case the kappa light chain variable region. The fusion PCR reaction is used to produce two fragments with cohesive termini, which when mixed hybridise to form an overlapping DNA duplex that is internally primed. Subsequent PCR extends the non-overlapping region to form a hybrid DNA mol. that is dicistronic contg. a first polypeptide coding sequence and a second polypeptide coding sequence linked by a dicstronic bridge. This method thus allows fusion of heavy and light chains prior to vector ligation, avoiding the cumbersome separate cloning of fragments. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  primers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         chromosomal rearrangement; kin17 protein; SOS DNA repair system; RecA; genotoxic agent; zinc finger; DNA binding protein; PCR primer; hybridisation probe; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                   Prodn. of dicistronic DNA library used to make antibodies, etc. -
includes forming 1st and 2nd PCR admixtures, subjecting them to PCR
thermo-cycles, sepg. double stranded DNA, hybridising, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Purified murine kin17 protein prepn. for detecting chromosomal rearrangements - also related antibodies, human and murine DNA, probes and vectors, used to assess damage caused by genotoxic a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Guilly M;
                                                                                                                                                                                                                                                                                                                                                                                                                            1.6%; Score 13.2; DB 1; Length 18; 83.3%; Pred. No. 4.8e+02; Live 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mauffrey P,
                                                                                                                                                                                                                                                                                                                                                                                         Sequence 18 BP; 5 A; 6 C; 4 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Frelat G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (COMS ) COMMISSARIAT ENERGIE ATOMIQUE
                                                                                                                Claim 14; Page 38; 143pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 14; Page 34; 54pp; French.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93FR-00007171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93FR-00007171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Angulo-Mora JF, Tissier A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 862 GTGATGAGCCCAACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGATGACCCAGACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAQ79940 standard; cDNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 83.3'
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Murine Kin17 oligo E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1995-039031/06.
WPI; 1992-331724/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FR2706487-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-JUN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-JUN-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-DEC-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-MAR-2003
06-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAQ79940;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     •-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 637
```

셤 8

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention describes nucleic acid molecules which modulate the srpthesis, expression and/or stability of a mRNA encoding 1 or more receptors of vascular endothelial growth factor (VBGF). A patient (preferably human) having a condition associated with the level of the final-like tyrosine kinase 1 (fit-1), kinase insert domain containing receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour anglogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be treated by administering the nucleic acid molecule or the expression vector to the patient. AAX67255 to AAX75752 represent specific examples of nucleic acid molecules from the present invention
structure), has apparent mol. wt. 43 kD and is recognised by both anti-kin17 antibodies and antibodies against the RecA protein of E.coli. The Kin17 protein is involved in DNA repair; it can be used to monitor chromosomal rearrangements following exposure to genotoxic agents. Specific oligonucleotides (AAQ79937-Q79947) derived from the kin17 genomic DNA sequence, are claimed and can be used as hybridisation probes or as amplification primers. Oligos E and F are pref. used together in a primer pair. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1; KDR; hammerhead ribozyme; hairpin ribozyme; cleavage; tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease; fms-like; tyrosine kinase 1; kinase insert domain containing receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA stability - useful for treating e.g. tumour angiogenesis, psoriasis, rheumatoid arthritis, etc., in a human patient.
                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                  1.6%; Score 13.2; DB 1; Length 18; 83.3%; Pred. No. 4.8e+02; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human KDR VEGF receptor hairpin ribozyme substrate #5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ۵,
                                                                                                                                                                               Sequence 18 BP; 5 A; 4 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 18 BP; 4 A; 5 C; 5 G; 0 T; 4 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Escopedo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Stinchcomb D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 4; Page 118; 218pp; English.
                                                                                                                                                                                                                                                                                                  468 CTCCAGGAACTTGGCATT 485
                                                                                                                                                                                                                                                                                                                                                                                                                                        ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95US-0005974P.
96US-00584040.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  96WO-US017480.
                                                                                                                                                                                                                                                                                                                                       18 Crcaargaactrescagr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIBOZYME PHARM INC. CHIRON CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAX71707 standard; RNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         foetal liver kinase 1; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                      Query Match 1.6
Best Local Similarity 83.3
Matches 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pavco P, Mcswiggen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1997-259017/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-OCT-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-JAN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9715662-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAX71707;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (RIBO-) 1
(CHIR ) (
                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 638
                                                                                                                                                                                                                                                                                                                                                                                                                        AAX71707,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         8888888888
                                                                                                                                                                                                                                                                                                    ò
```

The murine Kinl7 protein includes a zinc finger domain (see AAR66766), recognises single- and double-stranded DNA (partic. regions of secondary

US5693779-A.

Xenopus sp.

schu568-1.rng

```
S
                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                              The present sequence is an oligonucleotide primer used in the preparation of complementarity determining region 3 (CDR3) libraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anti-dorsalising morphogenetic protein; ADMP-1; Xenopus; neuroblastoma; human bone morphogenic protein 3; BMP-3; therapy; diagnosis; neuroma; tissue proliferation; neurofibromatosis; probe; PCR primer; amplify; ss.
                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps

    using synthetic
gene as universal

                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                        ·,
                                                                                                                                                                                                                                                                                           Plueckthun A;
Query Match
1.6%; Score 13.2; DB 1; Length 18;
Best Local Similarity 83.3%; Pred. No. 4.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                     Score 13.2; DB 1; Length 18;
Pred. No. 4.8e+02;
0; Mismatches 3; Indels
                                                                                                                                                               Oligonucleotide primer, preparation, library, CDR3, complementarity determining region, ss.
                                                                                                                                                                                                                                                                                                                            Preparation of human derived antibody gene library consensus sequences, and signal consensus antibody framework for highly diverse antibody libraries.
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 18 BP; 5 A; 6 C; 6 G; 1 T; 0 U; 0 Other,
                                                                                                                                                                                                                                                                                           Moroney S,
                                                                                                                                                                                                                                                                           (MORP-) MORPHOSYS GES PROTEINOPTIMIERUNG MBH
                                                                                                                                                                                                                                                                                           Ge L,
                                                                                                                                                                                                                                                                                                                                                             Example 5; Fig 37; 436pp; English
                                  187 GTGGCCGGGTCAGTTTCC 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                         303 GCCCTGCATGGGAAAGAC 320
                                                                                                                                              Oligonucleotide primer O_K3L_5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT99177 standard; cDNA; 18 BP.
                                                   Н
                                                                                             BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Primer used in the invention.
                                                                                                                                                                                                                                                                                           Ilag V,
                                                                                                                                                                                                                                          96WO-EP003647
                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 1.6%;
Best Local Similarity 83.3%;
Matches 15; Conservative
                                                  GAGGCCAAGTCAGTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCTGCAAGCGGAAGAC
                                                                                             AAT88311 standard; DNA; 18
                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                            Pack P,
                                                                                                                                                                                                                                                                                                           WPI; 1997-179277/16.
                                                                                                                                                                                                                                          .9-AUG-1996;
                                                                                                                                                                                                                                                           18-AUG-1995;
                                                                                                                             23-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-MAR-1998
                                                                                                                                                                                                                         36-MAR-1997
                                                                                                                                                                                                                                                                                            Knappik A,
                                                                                                                                                                                        Synthetic.
                                                  18
                                                                                                             AAT88311;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT99177;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 640
AAT99177/c
                                                                             RESULT 639
                                                                                    8
                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
AAT99157-T99188 represent amplification primers used in the invention. These sequences were used to amplify developmental sequences, to determine the expression of the protein of the invention in various stages of embryo development. The protein of the invention is the anti-dorsalising morphogenetic protein (ADMP-1) of Xenopus. ADMP-1 is closely related to the human bone morphogenic protein 3 (BMP-3). The ADMP-1 can be used to treat and diagnose conditions involving inappropriate tissue proliferation, e.g. neuroblastoma, neuroma and neurofibromatosis. The polynucleotide can be used to probe mammalian DNA libraries for mammalian equivalents of ADMP-1
                                                                                                                                                                                                                                                                                                                                 Polynucleotide encoding Xenopus anti-dorsalising morphogenetic protein useful to treat and diagnose conditions involving inappropriate tissue proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human RhoC phosphorothioate antisense oligonucleotide SEQ ID NO:138.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Identification; genetic target; gene modulation; human; probe; antisense oligonuclectide; phosphorothicate; PCR primer; nuclectide sequence-based technology; antisense drug discovery; target validation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.6%; Score 13.2; DB 1; Length 18; 83.3%; Pred. No. 4.8e+02; ative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 18 BP; 4 A; 3 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                  (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 3; Col 11; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660 CTCATGCAGCTGAAGCTC 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ40986 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0081483P.
                                                        94US-00335583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US008268
                                                                                                          94US-00335583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     crcarcaacrecaecre
                                                                                                                                                                                                                          Wang S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-JAN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                               WPI; 1998-031819/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
hes 15; Conserv
                                                                                                                                                                                                                       Krinks M,
                                                        08-NOV-1994;
                                                                                                          08-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO9953101-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-APR-1998;
28-APR-1998;
02-DEC-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ40986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18
                                                                                                                                                                                                                       Moos M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ40986
```

ô

```
A method has been developed of defining a set of compounds that modulate the expression of a target nucleic acid (tha) sequence via binding of the compounds with the tha Sequence. The method comparises generating a compounds with the that sequence. The method comprises generating a library of virtual compounds in silico according to defined criteria, also described are: (1) a method of a coording to defined criteria. Also described are: (1) a method of defining a set of oligomucleorides (ONS) that modulate the expression of a that sequence via binding of the ONS with the that sequence comprising comparing a library of virtual compounds in silico according to defined criteria; and evaluating in silico the binding of the virtual ONS with the that according to defined criteria; and (2) a method of defining a set of compounds that modulate the expression of a method of defining of the compounds with the that. The methods can be used for the generation of synthetic compounds having defined physical, and identification of synthetic compounds having defined physical, confined or variety of nucleotide sequence-based technologies, e.g. tractable to a variety of nucleotide sequence-based technologies, e.g. the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                        5
                                                                                   Identifying compounds which modulate expression of nucleic acids, used provide compounds having defined physical, chemical or bioactive properties, e.g. antisense activity.
 Brooks DG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Brooks DG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human G-alpha-11 phosphorothioate antisense oligonucleotide #79.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Identification, genetic target, gene modulation, human, probe, antisense oligonucleotide, phosphorothioate, PCR primer, nucleotide sequence-based technology, antisense drug discovery; target validation, as.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match 1.6%; Score 13.2; DB 1; Length 18; Local Similarity 83.3%; Pred. No. 4.8e+02; les 15; Conservative 0; Mismatches 3; Indels
 Sasmor HM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sasmor HM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 18 BP; 5 A; 8 C; 2 G; 3 T; 0 U; 0 Other;
Freier SM,
Vickers TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Baker BF, Mcneil J, Freier SM,
                                                                                                                                                             Example 18; Page 97; 264pp; English
Cowsert LM, Baker BF, Mcneil J,
Ohasi C, Wyatt JR, Borchers AH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0081483P.
98US-00067638.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US008268.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    614 GGCCATCTCAACCAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 GGCCATCTCAAACACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .175/c
AAZ41175 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9953101-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-APR-1998;
28-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cowsert LM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAZ41175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loca
Matches
```

```
the expression of a target nucleic acid (tNA) sequence via binding of the compounds with the tNA sequence. The method comprises generating a compounds with the tNA sequence. The method comprises generating a compounds with the tNA sequence. The method comprises generating a compound with the tNA sequence via binding of the virtual compounds with the tNA according to defined criteria. Also described are: (1) a method of defining a set of oligonucleotides (ONS) that modulate the expression of a tNA sequence via binding of the ONS with the tNA sequence comprising a tNA sequence via binding of the binding of the virtual observation of criteria, and evaluating in silico the binding of the virtual ONS with the tNA according to defined criteria; and (2) a method of defining a set of compounds that modulate the expression of a tNA sequence via binding of the compounds with the tNA. The methods can be used for the generation and identification of synthetic compounds having defined physical.

Compounds with the tNA. The methods can be used for the generation of the compounds is used to identify nucleic acid sequences that are tractable to a variety of nucleotide sequence-based technologies, e.g. antisense drug discovery and target validation. AAZ40852 to AAZ41220, and AAX52701 to AAX52704 to PAX521200 and AXX52701 to AAX52704 to present sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                           Identifying compounds which modulate expression of nucleic acids, used to provide compounds having defined physical, chemical or bioactive properties, e.g. antisense activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Embryo derived interleukin related factor; diagnosis; detection; therapy; DINFR-related disease; immune disorder; haematcpoietic disorder; developmental disorder; EDIRF related by Sociasis; EDIRF II; PCR primer; si.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.6%; Score 13.2; DB 1; Length 18; 83.3%; Pred. No. 4.8e+02; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seguence 18 BP; 4 A; 4 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCR primer for Human EDIRF II coding sequence.
Borchers AH, Vickers TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.
                                                                                                                                                           Example 27; Page 109; 264pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661 TCATGCAGCTGAAGCTCA 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18 rccreckecreaecrea 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US027068.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAX84480 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-418929/35.
                                         WPI; 1999-620446/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
ses 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9932632-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUL-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Holtzman DA;
  Ohasi C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAX84480;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAX84480
  ò
```

```
This sequence is a PCR primer for DNA encoding the embryo-derived interleukin-related factor (EDIRF) of the invention, designated human EDIRF II. The EDIRF DNA and protein sequences (and their homologues), antibodies (Ab) specific for EDIRF, and other modulators are used: (i) in screening and detection assays, e.g. for chromosome mapping, tissue typing or forensic studies; (ii) in diagnosis, prognosis or monitoring clinical trials; and (iii) for treating or preventing EDIRF-related diseases (especially immune, haematopoietic, differentiative, developmental or inflammatory disease, including arthritis and psoriasis. The EDIRF coding sequence, or its fragments, are also useful as probes and primers (for detecting related sequences and disease-associated mutations, also for mutagenesis), for expressing recombinant EDIRF and as source of antisense, riboxyme and peptide nucleic acids for inhibiting translation of EDIRF-derived mRNA. EDIRF is used to raise Ab (useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human G-alpha-11 phosphorothioate antisense oligonucleotide SEQ ID NO:86.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human, G-alpha-11; antisense oligonuclectide; inhibition; expression; phosphorothicate; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                          ţ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Inhibitory antisense compounds useful for the treatment of diseases associated with G-alpha-11.
                                                                                                                                                                                                                                                                                                                                       modification, for affinity purification and therapeutically) and screen for specific modulators (e.g. peptides or peptidomimetics)
                                                                                                                                                                                                                                                                                                                        detecting EDIRF, including forms with aberrant post-translational
                Nucleic acid encoding embryo-derived interleukin-related factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                            1.6%; Score 13.2; DB 1; Length 18; 83.3%; Pred. No. 4.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                             Sequence 18 BP; 4 A; 6 C; 6 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                  Example 2; Page 75; 116pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                664 TGCAGCTGAAGCTCACAG 681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ19546 standard; DNA; 18 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-00205922.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-00205922.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 recaderecaeccacae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-NOV-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
.....hes 15; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-539140/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SISI (-SISI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US5951455-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ19546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ19546/
à
```

ö

```
thuman G-alpha-il is a member of the Gi subfamily of G proteins which is involved in hormonal inhibition of ademylyl cyclase and in the regulation of plasma membrane enzymes. The expression of G-alpha-il is altered in some tumours. The present sequence is a G-alpha-il antiense competution. The present sequence is a G-alpha-il antiense coligonalectie, which can be used to inhibit the expression of human G-alpha-il. The invention relates to antisense oligonaclectides represented in AAA10814-A1083, which can be used in the treatment of diseases or condition associated with the expression of G-alpha-il by modulating the may also be used prophylactically, e.g. to prevent or delay infection, infammation, or tumour formation. Furthermore, the antisense compositions inflammation, or tumour formation. Furthermore, the antisense composition of algonaclectides may also be useful in research and diagnostics, e.g. in detecting nucleic acids encoding G-alpha-il by conjugation of an enzyme to he oligonaclectide, kits using such detection means for detecting the level of G-alpha-il in the sample may also be prepared. Antisense oligonaclectides, which are able to inhibit specific gene expression, are often used to elucidate the inhibit specific genes. These antisense compounds are also used to distinguish between functions of various members of a biological pathway
                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New antisense compounds targeting nucleic acids encoding human G-alpha-il useful for modulating G-alpha-il expression and for treating diseases associated with G-alpha-il expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G-alpha-il; G protein; adenylyl cyclase hormonal inhibition; tumour; plasma membrane regulation; antisense composition; treatment; prevent; delay; infection; inflammation; tumour formation; research; diagnose; ss.
oligonucleotides may be useful for the treatment of diseases associated with G-alpha-11
                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                   ..
0
                                                                                                                                                                                                       Length 18;
                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 G-alpha-il antisense oligonucleotide ISIS# 25743.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 18 BP; 4 A; 5 C; 2 G; 7 T; 0 U; 0 Other;
                                                                                                                           Sequence 18 BP; 4 A; 4 C; 6 G; 4 T; 0 U; 0 Other
                                                                                                                                                                                                   1.6%; Score 13.2; DB 1;
83.3%; Pred. No. 4.8e+02;
rative 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                          661 TCATGCAGCTGAAGCTCA 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 3; Col 38; 31pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-00289377.
                                                                                                                                                                                                                                                                                                                                                                                                                              18 rccrecaecreaaccrea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAA10825 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-JUL-2000 (first entry)
                                                                                                                                                                                                       Query Match 1.6
Best Local Similarity 83.3
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-292434/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-APR-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US6046321-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAA10825;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AÀA10825/
AAA10825/
AA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10826/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA10825/
AAA1082
               88
                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                          셤
```

DB 1; Length 18;

1.6%; Score 13.2;

Query Match

The present invention describes inhibitory antisense compounds of 8-30 nucleotides, targeted to a nucleic acid molecule encoding human G-alpha-11. AAZ19468 to AAZ19547 represent human G-alpha-11 phosphorothioate antisense oligonucleotides given in the present invention. The

Example 15; Col 41; 38pp; English.

```
The present sequence is that of the forward primer used in the real-time quantitative PCR amplification of cancer specific gene Proll4 (see AASSOSOIN) Proll4 mRNA expression is higher in prostate than any other healthy tissues examined, indicative of it being a diagnostic marker for diseases of the prostate, especially cancer. The invention provides ESTS and full-length contigs for GSGs (see AAZSASOSOIN). The GSGs, polypeptides encoded by them, and antibodies that specifically bind CSG are used in claimed methods for detecting, diagnosing, monitoring, staging, imaging and treating prostate cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Diagnosing, staging and monitoring the presence and metastases of prostate cancer especially useful for treating prostate cancer comprises measuring changes in cancer specific gene levels.
                                                                                                                           Prostate cancer; cancer specific gene; CSG; expressed sequence tag; EST; diagnosis; monitoring; staging; imaging; therapy; metastasis; marker; human; Proll4; PCR primer; ss.
                                                                                                   Prostate cancer diagnostic marker Prol14 forward PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 18 BP; 3 A; 3 C; 7 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 2; Page 40; 74pp; English.
AAZ95030 standard; DNA; 18 BP.
                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                       Salceda S, Recipon H,
                                                                                                                                                                                                                                                                                                                                                                                   (DIAD-) DIADEXUS LLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-339531/29.
                                                                                                                                                                                                                                              WO200023111-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05-MAY-2000
                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                   19-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                  19-0CT-1998;
                                                                      L5-AUG-2000
                                                                                                                                                                                                                                                                                 27-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAZ89730;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 648
   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is one of a large number of antisense cligonucleotides designed to target different regions of the human CD44 mana. CD44 is a multifunctional human cell surface adhesion receptor. The oligonucleotides were analysed for effect on CD44 mana levels by quantitative real-time PCR analysis. Antisense oligonucleotides that inhibit CD44 expression can be used to treat CD44-associated conditions inhibit CD44 exprosiferative disorders, such as cancer, and inflammatory conditions, such as rheumatoid arthritis. The antisense compounds hybridise to CD44 nucleic acids, thus allowing sandwich and other assays hybridise to cD44 nucleic acids, the sequence has a phosphorothicate backbone and may be either an oligodeoxymucleotide or a chimaric oligonucleotide containing 2'-methoxyethyl (2'-MOE) wings and a deoxy app. The ISIS number given above corresponds to the oligodeoxymucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New antisense compound, that inhibits the expression of human cell surface adhesion receptor CD44, for treating hyperproliferative disorders and inflammatory conditions, such as cancer and rheumatoid arthritis.
                        ö
                                                                                                                                                                                                                                                                                                                 Human; CD44; cell surface adhesion receptor; cytostatic; antirheumatic; antiinflammatory; antiarchritic; CD44 antisense inhibition; hyperproliferative disorder; cancer; inflammatory disorder; rheumatoid arthritis; ss.
                        Gaps
                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.6%; Score 13.2; DB 1; Length 18; 83.3%; Pred. No. 4.8e+02; ive 0; Mismatches 3; Indels
       83.3%; Pred. No. 4.8e+02;
:ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 18 BP; 3 A; 3 C; 6 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                 Human CD44 antisense oligonucleotide ISIS# 18745.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 15; Page 77; 105pp; English.
                                                         250 TGAAGGACTTAGACAGGA 267
                                                                                            18 rgaargacrrggacagaa 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US029576,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-00213719.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity 83.3%;
ses 15; Conservative
                                                                                                                                                                               AAA52856 standard; DNA; 18
                                                                                                                                                                                                                                                      15-SEP-2000 (first entry)
       Best Local Similarity 83.3
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-431564/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200035935-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                 Home sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bennett CF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-JUN-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                      AAA52856;
                                                                                                                                                  RESULT 646
                                                                                                                                                                  à
```

Cafferkey R;

99WO-US024331.

```
.
0
                                                                                                                                                                                                                                   RIP-1; RalBP; RLIP; antisense inhibitor; anti-inflammatory; cytostatic; anti-infective; diagnose; prevent; treatment; tumour formation; ss.
                          Gaps
                           ö
Query Match
Best Local Similarity 83.3%; Pred. No. 4.8e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                             Human RIP-1 antisense oligonucleotide ISIS# 23893.
                                                  516 TIGGCATTIGGGAGTCAA 533
                                                                           rececarcreserercaa 18
                                                                                                                                          ВЪ
                                                                                                                            AAZ89730/c
ID AAZ89730 standard; DNA; 18
                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                     US6020198-A.
```

. 0

Gaps

ö

510 GCCAGITIGGCATITGGG 527

à 유

śccaricisaarirska 18

RESULT 647 AAZ95030

```
coding region of human RIP-1. RIP-1 (also known as RalBP1 and RLIP) is a Grasse activating protein (GAP) thought to be a downstream target of Ral. The invention relates to antisense phosphorothicate oligonucleotides with anti-infective, anti-inflammatory and cytostatic activity. The oligonucleotides are RIP-1 antisense inhibitors and are used in the diagnosis, prevention and treatment of conditions associated with RIP-1 expression. Conditions associated with RIP-1 expression include various
                                                                                                                                                                                                                                                                                                          This sequence represents an antisense oligonucleotide which binds to the
                                                                                                                                                                                                           Antisense inhibition of human RIP-1 expression, useful for diagnosing, preventing and treating conditions such as inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 18 BP; 2 A; 6 C; 3 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                nfections, inflammation and tumour formation
                                                                                                                                                                                                                                                                    Claim 3; Col 27; 26pp; English.
                    98US-00161443.
                                                          98US-00161443
                                                                                                                                   Cowsert LM;
                                                                                              PHARM INC.
                                                                                                                                                                         WPI; 2000-146889/13
                    25-SEP-1998;
                                                        25-SEP-1998;
                                                                                            SISI (-SISI)
                                                                                                                                   Bennett CF,
```

1.6%; Score 13.2; DB 1; Length 18; larity 83.3%; Pred. No. 4.8e+02; Conservative 0; Mismatches 3; Indels 760 AGATGGCAGAACTGGAGA 777 18 AGAGTGCAGAACTGGACA 1 Local Similarity 15; Query Match Best Loca Matches à g

.. 0

Gaps

; 0

AAZ70705 standard; DNA; 18 10-SEP-2001 AAZ70705; RESULT 649

BP.

(first entry)

Human biallelic marker upstream amplification primer SEQ ID NO:5061 Human genome; biallelic marker; high density disequilibrium map; genomic map; haplotype; phenotype; polymorphic base; genotyping; haplotyping; hybridisation; identification; characterisation; amplification; single nucleotide polymorphism; SNP; PCR primer;

diagnosis; ss

Homo sapiens W09954500-A2

28-OCT-1999.

21-APR-1999;

98US-0082614P. 98US-0109732P. 21-APR-1998; 23-NOV-1998;

99WO-IB000822

(GEST) GENSET

Chumakov I; Blumenfeld M, Cohen D,

New antisense compounds that limit the expression of human TRADD protein, useful in the treatment and diagnosis of cancer, inflammation and septic

The intracellular protein TRADD has been identified as a critical link between tumour necrosis factor (TNF) receptor binding and downstream

Claim 3; Page 51; 85pp; English.

shock.

WPI; 2000-013267/01

Novel biallelic markers used to construct a high density disequilibrium map of the human genome.

```
AAZ65654 to AAZ69578 represent human biallelic markers from the present invention, which contain a polymorphic base at position 24 of their nucleotide sequences. AAZ69579 to AAZ740 represent amplification primers for the biallelic markers. The biallelic markers of the invention have a variety of uses: they can be used for high density mapping of the human genome, and in complex association studies and haplotyping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agents and diagnostic methods, as well as the characterisation of the pharmaceutical agents acting on a disease as well as other treatment. N.B. The SEQ ID NOS 2852, 2913, 2974, 3035, 3367, are not actually given a sequence in the Sequence Listing from the
                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag= a
/note= "Complementary to bases 389-372 of the human TRADD
sequence described in GENESEQ record AAZ93431"
                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRADD; TNF; tumour necrosis factor; NF-kappa-B; apoptosis; programmed cell death; antisense; inhibition; treatment; therapy; septic shock; inflammation; cancer; antiinflammatory; human; ss.
                                                                                                                                                                                                                                                                                                                                        .,
                                                                                                                                                                                                                                                                                                      1.6%; Score 13.2; DB 1; Length 18; 83.3%; Pred. No. 4.8e+02; tive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                         Sequence 18 BP; 3 A; 4 C; 7 G; 4 T; 0 U; 0 Other;
Claim 8; Page 1310; 2745pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        complement (1. .18)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRADD antisense oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                   463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-00143212.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US019614
                                                                                                                                                                                                                                                                                                                                                                   446 GCCAGATGCCTTCCAGGA
                                                                                                                                                                                                                                                                                                                                                                                           GTCAGATCCCCTCCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ93459 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 83.3
Matches 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-237846/20.
                                                                                                                                                                                                                                               present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200012527-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                              18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAZ93459;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Monia BP,
                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 650
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
```

```
kappa-B in the absence of TNF and dominant negative mutants of TRADD chappa-B in the absence of TNF and dominant negative mutants of TRADD chappa-B in the absence of TNF and dominant negative mutants of TRADD chock TNF-induced NF-Kappa-B activation. A second effect of TNF in many cell types is the induction of apoptosis (programmed cell death). TRADD overexpression has been shown to mimic TNF induction of apoptosis as well. Data indicates that TRADD and other downstream effector proteins care the rate limiting step of TNF action and would therefore serve as the most efficient targets for inhibition of TNF-induced events. Antisense oligonucleotides capable of inhibition of TNF-induced events. Antisense cliqued expression of TRADD by contacting human cells or tissues with the antisense compound may be used to treat a disease or condition associated with TRADD expression, for example, septic shock, inflammation, or cancer. TRADD antisense oligonucleotides of varying inhibitory capabilities are listed in GENESEQ records AAZ93438-Z93517. The antisense oligonucleotides exhibit enhanced inhibitory capabilities
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              when they have 2'-MOE wings and a deoxy gap
```

Sequence 18 BP; 3 A; 5 C; 8 G; 2 T; 0 U; 0 Other;

```
Query Match 1.6%; Score 13.2; DB 1; Length 18; Best Local Similarity 83.3%; Pred. No. 4.8e+02; Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                         642
                                                                                                                               ccascacrossiscosci
                                                                                     625 CCAGCGCTCAGTCCCGCT
                                                                                                                                    18
                                                                                           8
```

ö

Gaps

. 0

AAA63616 standard; DNA; 18 BP AAA63616;

Fragment of the 16S ribosomal RNA gene of Legionella species.

04-DEC-2000 (first entry)

Nucleic acid reference material, polymerase chain reaction; PCR; nucleic acid amplification; 16S ribosomal RNA gene; ss.

Legionella hackeliae

WO200046401-A1.

10-AUG-2000.

02-FEB-2000; 2000WO-GB000305

99GB-00002422 03-FEB-1999;

(LGCT-) LGC TEDDINGTON LTD.

Mcdowell DG;

WPI; 2000-514968/46.

New nucleic acid reference material comprising two reference sequences for use in the polymerase chain reaction and for verifying nucleic acid amplification reactions by acting as a control.

The specification describes a nucleic acid reference material, which comprises two reference sequences, each with a pair of primer binding sites which are the same except for the substitution of one or a few nucleotide bases. The reference material is used in the polymerase chain reaction (PCR). The reference material is used as a control for verifying nucleic acid amplification reactions. The reference material is designed to be used in isolation in PCR systems or simultaneously within PCR assays, to control for and allow the measurement of PCR specificity and sensitivity. Amplification reactions that can be verified include ligase chain reaction, gapped ligase chain reaction, strand displacement amplification, nucleic acid sequence based amplification and self-sustained sequence replication. The reference material is particularly useful where detection of tearget sequences in medical or environmental useful where detection of tearget sequences in medical or environmental subsommal RNA gene. A fragment of the 16S ribosomal RNA gene of L. pneumophila was used to produce a reference material of the invention

Example 1; Fig 1B; 54pp; English.

Sequence 18 BP; 5 A; 3 C; 9 G; 1 T; 0 U; 0 Other;

Example 1; Fig 1B; 54pp; English.

The specification describes a nucleic acid reference material, which comprises two reference sequences, each with a pair of primer binding sites which are the same except for the substitution of one or a few nucleotide bases. The reference material is used in the polymerase chain reaction (PCR). The reference material is used as a control for verifying nucleic acid amplification reactions. The reference material is designed assays, to control for and allow the measurement of PCR specificity and sensitivity. Amplification reactions that can be verified include ligase

```
.
0
           amplification, mucleic acid sequence based amplification and self-
sustained sequence replication. The reference material is particularly
useful where detection of target sequences in medical or environmental
samples is desired, AAAG3609-21 represent internal fragments of the 16S
ribosomal RNA gene. A fragment of the 16S ribosomal RNA gene of L.
pneumophila was used to produce a reference material of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New nucleic acid reference material comprising two reference sequences for use in the polymerase chain reaction and for verifying nucleic acid amplification reactions by acting as a control.
                                                                                                                                                             Gaps
gapped ligase chain reaction, strand displacement
                                                                                                                                                                                                                                                                                                                                                                                           Nucleic acid reference material; polymerase chain reaction; PCR; nucleic acid amplification; 16S ribosomal RNA gene; ss.
                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                Fragment of the 16S ribosomal RNA gene of Legionella species.
                                                                                                                                Match 16%; Score 13.2; DB 1; Length 18; Local Similarity 83.3%; Pred. No. 4.8e+02; les 15; Conservative 0; Mismatches 3; Indels
                                                                                                          Sequence 18 BP; 5 A; 3 C; 9 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                        322 GCAGAGGTGTGGAGC 339
                                                                                                                                                                                                                  1 GGAGAGAGCTGGGGACC 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99GB-00002422.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-FEB-2000; 2000WO-GB000305
                                                                                                                                                                                                                                                                                     AAA63619 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (LGCT-) LGC TEDDINGTON LTD.
                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                     Legionella spiritensis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-514968/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200046401-A1.
                                                                                                                                                                                                                                                                                                                                         04-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-AUG-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mcdowell DG;
                                                                                                                                                                                                                                                                                                                 AAA63619;
                                                                                                                                      Query Match
                                                                                                                                                                                                                                                          RESULT 652
                                                                                                                                                                                                                                                                          AAA63619
                                                                                                                                                                                                                                                                                       8X888888888888
                                                                                                                                                                                           à
```

琚.

AAF94707 standard; DNA; 18

RESULT 654

schu568-1.rng

AAF94707

ö

(first entry)

23-MAY-2001

AAF94707;

```
This invention describes a novel human betal-adrenoreceptor gene (I) that comprises 1-7 or more mutations, excluding the sequence with the cutations Alal45Gly or Glyl165Cys. The invention also describes (I) a method for determining predisposition to disease by genotyping DNA of (I) at one or more exchanged position and comparison with a reference of sequence; and (2) a new variant of the betal-adrenoreceptor (II) which include at least one of the amino acid changes Ser45Gly, Ala59Ser, Gly389Arg, Arg399Cys, His402Arg, Thr404Ala and/or pro418Ala, but of sectioning the sequence with a single amino acid exchange at positions or 389. Genotyping of (I) is used to determine predisposition to assessing severity of this condition. Gene (I) can be used for the following: (i) development of therapeutic agents, especially a new class of the condition. Gene (I) can be used for the collowing: (i) development of therapeutic agents, especially a new class of betal-adrenoreceptor (ant) agonists; (ii) construction of genes or vectors, especially for pharmaceutical development; and (iii) develop diagnostic kits, particularly for determining predisposition and individual responses to different betal-adrenoreceptor (ant) agonists, including predisposition to develop side effects and habituation
                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New mutated gene for human betal-adrenoreceptor, useful for drug development and in genotyping for predisposition to cardiomyopathy.
                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                            Betal-adrenoreceptor; human; mutation; disease predisposition;
/ Match 1.6%; Score 13.2; DB 1; Length 18; Local Similarity 83.3%; Pred. No. 4.8e+02; Nes 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.6%; Score 13.2; DB 1; Length 18; Similarity 83.3%; Pred. No. 4.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seguence 18 BP; 4 A; 7 C; 5 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mueller J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (DELB-) DELBRUECK CENT MOLEKULARE MEDIZIN MAX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Х,
                                                                                                                                                                                                                                                                                                                                                   Human betal-adrenoreceptor primer #2.
                                                                                                                                                                                                                                                                                                                                                                                                               cardiomyopathy; dilative; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wenzel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 6; 23pp; German.
                                                                                  322 GCAGAGAAGCTGTGGAGC 339
                                                                                                                      1 GGAGAGGTGGGGACC 18
                                                                                                                                                                                                                              BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-AUG-2000; 2000WO-DE002648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99DE-01038390
                                                                                                                                                                                                                          AAF61167 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      s,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 83.33
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Podlowski
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-202770/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200111039-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-AUG-1999;
                                                                                                                                                                                                                                                                                                            18-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wallukat G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-FEB-2001
  Query Match
Best Local S:
Matches 15,
                                                                                                                                                                                                                                                                   AAF61167;
                                                                                                                                                                                     RESULT 653
                                                                                                                                                                                                          AAF61167,
                                                                                                                                                                                                                                             셤
                                                                                  à
```

```
This invention relates to an antisense compound targeted to a nucleic acid molecule encoding a member of the human Rho family of small GTP binding proteins, where the antisense compound inhibits the expression of the member of the human Rho family. The invention includes antisense oligonucleotides AAF94680 - AAF94637 which target a RhoA nucleotide sequence, AAF94668 - AAF9465 - AAF94680 - AAF94680 - AAF9465 - AAF94677 - AAF94686 - AAF9475 which target a RhoC nucleotide sequence, AAF9470 which target a Rac i nucleotide sequence and AAF9475 - AAF94809 which target cdc42 nucleotide sequence. The antisense compound is useful for treating hyperproliferative conditions, especially cancer, abnormal wound healing or clotting conditions and isolamomial frapartusion or recoxygenation injury. The compound may also be used to diagnose the above conditions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       An antisense compound targeted to a nucleic acid molecule encoding a member of the human Rho family of small GTP binding proteins useful for treating e.g. cancer and ischemia.
                                                                                                                       Rho; GTP binding protein; phosphorothioate antisense oligonucleotide; RhoA; RhoB; RhoC; RhoC; Rac 1; cdc42; hyperproliferative condition; cancer; wound healing; clotting; ischaemia; reperfusion; reoxygenation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Glucanase; endochitinase; exochitinase; cell-wall degradation; fungus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ó
                                                                                      Rho C antisense phosphorothioate oligonucleotide SEQ ID 131.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 1.6%; Score 13.2; DB 1; Length 18; Best Local Similarity 83.3%; Pred. No. 4.8e+02; Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 18 BP; 5 A; 8 C; 2 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Glucanase genomic DNA sequencing primer 1018.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 16; Page 73; 156pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      614 GGCCATCTCAACCAGCGC 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 GGCCATCTCAAACACCTC 18
                                                                                                                                                                                                                                                                                                                                                              99US-00387341.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВР
                                                                                                                                                                                                                                                                                                                            18-AUG-2000; 2000WO-US022808.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAS01725 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                      Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                 (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-191677/19.
                                                                                                                                                                                                                                                    WO200115739-A1.
                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                              31-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-SEP-2001
                                                                                                                                                                                                                                                                                         08-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                      Roberts ML,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAS01725;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAS01725/
ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

ò

0

Gaps

ô

3, Indela

0; Mismatches

605 GGTGGACGTGGCCATCTC 622

ò Dp

Gercarcereccarece 1

18

```
Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 657
a
                                                                                                                                                                                                                                                                                                                                                                                                               ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ő
                                                                                                                                                                                                                                                                                                                                                                                The sequence represents a sequencing primer for DNA encoding the Fusarium fungal enzyme, glucanase. Glucanase, endochitinase and exochitinase are polypeptides with cell-wall degrading activity, derived from Fusarium fungal genes. The associated nucleic acids can be used to produce transgenic plants which are resistant to plant pathogens, particularly Fusarium species. They can also be used to isolate homologous genes from fingi to obtain genes which protect host cells, including fund, bacteria and plants against related fungal pathogens. The polypeptides, especially chitinases and glucanases, are useful for degrading seafood waste, such as shells that contain chitin, or for chemical modification of chitin or
                                                                                                                                                                                                                                                                                         Fusarium nucleic acids encoding polypeptides having glucanase, endochitinase or exochitinase activity, useful for producing transgenic plants which are resistant to plant pathogens, particularly Fusarium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cluster, hierarchical clustering algorithm, population based study, clinical trial, DNA fingerprint, genetic profile analysis, PCR primer, SNP; single nucleotide polymorphism, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
transgenic plant; plant pathogen; bacteria; seafood waste; shell; ss;
chitin; chemical modification; glucan; sequencing primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sample member clustering methed related human DNA PCR primer #94.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.6%; Score 13.2; DB 1; Length 18; 83.3%; Pred. No. 4.8e+02; ative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 18 BP; 4 A; 8 C; 2 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                        Berka RM
                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 78; 216pp; English.
                                                                                                                                                                                                                                        Hohn TM,
                                                                                                                                                                                                 (NOVO ) NOVO NORDISK BIOTECH INC
(USDA ) US SEC OF AGRIC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           817 GTACTGTGGGTGCTGAAG 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                             30-AUG-1999; 99US-0151582P.
11-AUG-2000; 2000US-0224946P.
28-AUG-2000; 2000US-00649747.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-OCT-2000; 2000WO-IB001632.
                                                                                                                     30-AUG-2000; 2000WO-US023802.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGCTGAGAGTGCTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAF89357 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                          Fusarium sporotrichioides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15; Conservative
                                                                                                                                                                                                                                        Okubara PA, Blechl AE,
                                                                                                                                                                                                                                                                WPI; 2001-218524/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200129257-A2
                                                                 WO200116353-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-APR-2001
                                                                                            08-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAF89357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                    species.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         glucan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
```

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention describes methods of clustering members of a sample, involving applying a hierarchical clustering algorithm to the sample, members, determining the optimal number of clusters based on this and distributing the sample members into clusters using non-hierarchical culstering. The methods are useful in population based studies such as clinical trials, DNA fingerprinting and genetic profile analyses. The present sequence was used to demonstrate the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human, chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes a method of arraying genome clones. The method comprises: (a) clones of the genomic libraries contained in multiwell plates numbered for discrimination are mixed in each of the multiwell plates; (b) a primer designed based on the chromosome marker sequence is added to the mixture to carry out an amplification reaction;
                                                                                                                                                                                                                                                                                                                                                                                Genetic clustering by distributing members into optimal numbers of clusters determined by a hierarchical clustering algorithm or by paired-pair analysis of homozygous pairs in clusters got from non-hierarchical clustering.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             / Match 1.6%; Score 13.2; DB 1; Length 18; Local Similarity 83.3%; Pred. No. 4.8e+02; les 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human chromosome 1p36-35 PCR primer SEQ ID NO:2181.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 18 BP; 5 A; 5 C; 3 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 4; Page 47; 528pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 61; Page 93; 100pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 Argaacccagriccarre 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
22-OCT-1999; 99US-0161231P. 07-JUL-2000; 2000US-0216897P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-MAR-2000; 2000JP-00066716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-MAR-2001; 2001JP-00068285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              865 ATGAGCCCAACTCCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (RIKA ) RIKAGAKU KENKYUSHO.
(GENO-) GENOTEX YG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABL45137 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                     Skierczynski
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Arraying genome clones.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-144136/19.
                                                                                                                                                                                                                                                                                                       WPI; 2001-316248/33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JP2001321190-A.
                                                                                                                               (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-NOV-2001.
                                                                                                                                                                                                                     Schork N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABL45137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AB145137

AAC ABL4

AAC ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4

XX ABL4
```

1 m

```
amplified product to specify the discrimination Nos. of the multiwell plates containing the clones having said marker sequence; (d) the order of plates containing the clones having said marker sequence; (d) the order of the maximum in the clones having said marker sequence; (d) the order of the maximum in the specified discrimination Nos. to array the multiwell plates of the specified discrimination Nos. are mixed respectively in each wells of longitudinal and lateral directions; (f) the mixed clones are cultured and the resultant cultures are amplified by using the above primer; (g) signals are detected from the amplified products; (h) the clones in the multiwell plates are specified from the detected result; and (i) the clones are reconstituted as the positions on the chromosome and arrayed. The microarray is useful for gene analysis. ABi42957 to ABi45322 represent represent POR primers for human chromosome 1956-35 DNA, and ABI45323 to ABi45634 represent por plates are in the present invention
            $$$$$$$$$$$$$$$$$$$$
```

Sequence 18 BP; 4 A; 10 C; 2 G; 2 T; 0 U; 0 Other;

```
ö
                                         0; Gaps
1.6%; Score 13.2; DB 1; Length 18; 83.3%; Pred. No. 4.8e+02; ive 0; Mismatches 3; Indels
Query Match 1.6
Best Local Similarity 83.3
Matches 15; Conservative
```

396 ACACACACCCTGCTCCAG 413 18 1 AGACACCCCTCCTCCAG à d

ABX96552 standard; DNA; 18 BP. 658 ABX96552 RESULT

(first entry) 14-MAY-2003 ABX96552;

Human genomic DNA p53 codon 72 SNP primer #3.

Human, allele-specific base detection, primer extension reaction, assay, base-specific detection primer, allele-specific primer extension assay, AS, high throughput, single nucleotide polymorphism; SNP analysis, mutation detection; genetic variation, allele-specific extension, primer;

Homo sapiens.

WO200268684-A2

06-SEP-2002

22-FEB-2002; 2002WO-GB000794

23-FEB-2001; 2001GB-0004560. 23-FEB-2001; 2001US-00791190. 07-FEB-2002; 2002US-00071926.

Æ PYROSEQUENCING DZIEGLEWSKA H. PYRO-) (DZIE/) Lundeberg J, Ahmadian A, WPI; 2002-707012/76.

Nyren P;

Detecting a base at a pre-determined position in a nucleic acid molecule, comprises performing primer extension reactions using base-specific detection primers in the presence of a nucleotide-degrading enzyme.

Example 1; Page 26; 59pp; English.

The invention relates to a novel method for synthesising a target base sequence-containing nucleic acids. The method comprises the formation of single-stranded nucleic acids, synthesis of complementary strand by annealing, and producing single-stranded nucleic acid from a target base sequence by the synthesis of a complementary strand by annealing of a complementary base sequence. The method is useful for synthesising a target base sequence-containing nucleic acids, which is applicable in detecting SNP (single nuclectide polymorphism) in genes, identifying genetic diseases, cancer and microorganisms. Such a method can be easily, rapidly and freely carried out without being influenced by contamination or complicated temperature control, but with improved reaction specificity, high accuracy and efficiency, operable at low cost. This

Example 3; Page 66; 107pp; Japanese.

The present invention relates to a method for detecting a base at a predetermined position in a nucleic acid molecule. The method comprises performing primer extension reactions using base-specific detection primers, each being specific for a particular base at the predetermined

ö position. The allele-specific (AS) primer extension assay method of the invention is useful for detecting an allele-specific base at a predetermined position in a nucleic acid molecule, for high throughput single nucleotide polymorphism (SNP) analysis, and for detecting mutations and genetic variations. The new method solves the deficiencies of previous methods by providing a method of allele-specific extension that allows accurate discrimination between matched and mismatched configurations, as well as reducing or eliminating false positive results observed in prior art. The use of two allele-specific primers increases the sensitivity by a factor of two because signals of two extensions are obtained. The present sequence represents a primer used in the examples Synthesizing target base sequence-containing nucleic acids constituting complementary base sequences against template by the LAMP method, applicable in identifying genetic diseases, cancerization and Gaps Synthesising; target base sequence; annealing; genetic disease; SNP, single nucleotide polymorphism; cancer; PCR; primer; ss. Nucleic acid synthesising method related PCR primer, SEQ ID No 13. ô 1.6%; Score 13.2; DB 1; Length 18; 3; Indels Sequence 18 BP; 5 A; 6 C; 4 G; 3 T; 0 U; 0 Other; 4.8e+02; Pred. No. 4.86 0; Mismatches 664 TGCAGCTGAAGCTCACAG 681 1 TCCAGATGAAGCTCCCAG 18 08-MAY-2001; 2001JP-00137060. 18-JUN-2001; 2001JP-00184131. 08-MAY-2002; 2002WO-JP004479. 83.3%; AAL55132 standard; DNA; 18 (first entry) Local Similarity 83.3 tes 15; Conservative the present invention (EIKE) EIKEN KAGAKU KK WPI; 2003-120547/11. WO200290538-A1 microorganisms Unidentified. 16-APR-2003 14-NOV-2002. Nagamine K; Query Match AAL55132; Best Loca Matches RESULT 659 AAL55132 à

polynucleotide sequence represents a PCR primer used in the synthesising method of the invention

Sequence 18 BP; 3 A; 4 C; 7 G; 4 T; 0 U; 0 Other;

SSXSS

Gaps .; 0 1.6%; Score 13.2; DB 1; Length 18; 83.3%; Pred. No. 4.8e+02; tive 0; Mismatches 3; Indels Conservative Local Similarity hes 15; Conserv Query Match Best Loca Matches

603 CGGGTGGACGTGGCCATC 620

cereredargadeceare 18 Н

g

RESULT 660

BP. ADB54056 standard; DNA; 18

ADB54056;

Oligonucleotide 48 used to analyse CpG positions within genomic DNA 04-DEC-2003

88 cytostatic; cancer; adenoma; carcinoma; cytosine methylation state; colon cell proliferative disorder; non methylated CpG dinucleotide;

Unidentified

WO2003072821-A2

04-SEP-2003

27-FEB-2003; 2003WO-EP002035

27-FEB-2002; 2002EP-00004551

(EPIG-) EPIGENOMICS AG

Lesche R; Nimmrich I, Becker E, Maier S, Burger M, Schmitt A; Adorjan P, Rujan T,

WPI; 2003-731620/69

Detecting and differentiating between colon cell proliferative disorders associated with a gene or its regulatory regions comprises contacting a target nucleic acid in a biological sample obtained from the subject with

Claim 41; SEQ ID NO 112; 74pp; English.

The invention relates to a novel method for detecting and differentiating between colon cell proliferative disorders associated with at least one open or its regulatory regions. The method comprises contacting a target nucleic acid in a biological sample obtained from the subject with at least one reagent or a series of reagents, where the reagent or series of reagents, where the reagent or series of dinucleotides within the target nucleic acid. The molecules of the invention demonstrate cytostatic activity whilst the method may useful for decerting and differentiating between colon cell proliferative disorders, including cancers such as colon adenoma and colon carcinoma. The PRA (peptide nucleic acid)-oligomers are useful as probes for determining cytosine methylation state or single nucleotide polymorphisms. The current sequence is that of the oligonucleotide of the invention which was used to analyse the CyG positions within the genomic DNA regions. This sequence is not shown within the specification but is taken from Wipoweb

Sequence 18 BP; 4 A; 5 C; 4 G; 5 T; 0 U; 0 Other;

Gaps . 0 Score 13.2; DB 1; Length 18; Pred. No. 4.8e+02; 0; Mismatches 3; Indels Query Match
Best Local Similarity 83.3%;
Matches 15; Conservative

326 AGAAGCTGTGGAGCAACT 343 18 AGTATCTGCGGAGCAACT

g ò

ADC7033 RESULT

ö

ADC70336 standard; DNA; 18

ADC70336;

(first entry) 18-DEC-2003 Primer oligo used for analysing CpG islands in genomic DNA (SeqID 826)

PCR; primer; ss; lung cell proliferative disorder; CpG dinucleotide; adenocarcinoms; squamous cell carcinoma; cytostatic; probe; PNA-oligomer; cytosine methylation state.

Unidentified

WO2003052135-A2

26-JUN-2003.

10-DEC-2002; 2002WO-EP014026.

14-DEC-2001; 2001DE-01061625

(EPIG-) EPIGENOMICS

Maier S; Liloglou T, Lipscher E, Genc B, Field JK, Burger M, I

WPI; 2003-533029/50.

Detecting and differentiating cytosine methylation state of genomic DNA, useful for diagnosing, treating prognosticating and/or monitoring lung cell proliferative disorders e.g. adenocarcinoma and squamous cell carcinoma.

Claim 15; SEQ ID NO 826; 58pp; English.

This invention relates to a novel method for detecting and differentiating between lung cell proliferative disorders associated with relates to ne gene and/or their regulatory regions. Specifically, it refers to a method comprising contacting a target nucleic acid in a biological sample with at least one reagent, wherein the reagent is able to distinguish between methylated and non-methylated CpG dinucleotides present in the target DNA. As such, it is possible to further differentiate and diagnose medical conditions including adenocarcinoma and squamous cell carcinoma, and their respective adjacent lung tissue. The present invention describes cytostatic oligomers and pNA-oligomers that are useful as probes for determining the cytosine methylation state or single nucleotide polymorphisms (SNPS) of the target sequence. This oligomulectide sequence is a primer oligomer used for the analysis of the contaction within genomic DNA, used in an exemplification of the

Sequence 18 BP; 4 A; 1 C; 5 G; 8 T; 0 U; 0 Other;

Gaps .. 0 Score 13.2; DB 1; Length 18; Pred. No. 4.8e+02; Indels 0; Mismatches 1.6%; Conservative Query Match Best Local Similarity 15; Best Loc Matches

ò

931 TCAGGTTTTGTTTTATGA 948 18 TGAGGTTTCGTTTTAAGA

g

RESULT 662 ADD19972

ö

Length 18;

Jul 30 10:32:03 2004

Fr

ВР

ADD19972 standard; DNA; 18

```
Capped RNA molecule, mRNA maturation, translation initiation, influenza, endonuclease aptamer; RNase, therapy; inhibitor; ss.
```

1001000 18 BD 6 A 7 C 0 G 3 F 0 11 0 Other

Location/Onalifiers

Capped RNA based on 5' end of alpha-globin mRNA.

RESULT 664 ð 염 8 The present invention describes an isolated nucleic acid (I) comprising a single nucleotide polymorphism (SNP) chosen from: (i) a nucleic acid of Salmo salara SNPs, Oreochromis niloticus SNPs or Atlantic halibut SNPs; and (ii) a nucleic acid having nucleotide sequence that hybridises to call (ii) ar nucleic acid having nucleotide sequence that hybridises to call (i) or its complement under highly stringent hybridises to coditions. Also described: (I) an isolated oligonucleotide (II) comprising at least 1 contiguous nucleotides of a nucleotide sequence of S. salar SNPs, O. niloticus microsatellites, Atlantic halibut SNPs, Cod polymorphic sites and seabass polymorphic sites or their complement; (2) a primer pair (III) sultable for use in PCR, comprising two (II) capable of inloticus microsatellites, Atlantic halibut SNPs, Cod polymorphic sites and seabass polymorphic sites, and determining (MI) the complishing a collection of candidate parent genotypes and comparising providing a parentage genotype of the candidate parent genotype, where each of the candidate parent genotype represents a distinct origin, and comparing a candidate parent genotype, where each of the candidate parent genotype and one of the candidate parent genotype and one of the candidate parent genotype identifies to the sample genotype and one of the candidate parent genotype identifies or a fish sample such as family salmonidae, S. salar, Tilapia, O. niloticus, rainbow trout, halibut, saebass and Atlantic cod, (II) is useful for detecting nucleic acid molecule comprising sp. in a sample, which hybridises to (II). (III) which is derived from nucleotide sequence of S. salar, Tilapia, on inloticus syste, and identifying nucleic acid molecule comprising a polymorphic sites, and identifying a micleic acid molecule comprising a microsatellite, O. niloticus SNPs, All derived from one (II) is useful for detecting nucleic acid molecule comprising a microsatellite sequence in sample, reparent parent parent parent parent sequence is sequence in the exempl Novel isolated nucleic acid molecule comprising single nucleotide polymorphism associated with fish, useful for forming PCR primers which are used for detecting single nucleotide polymorphisms in fish nucleic single nucleotide polymorphism; SNP; fish; Salmo salar; Orechromis niloticus; Atlantic halibut; microsatellite; cod; polymorphic site; seabass; salmonidae; Tilapia; rainbow trout; halibut; Oreochromis niloticus microsatellite primer SEQ ID NO:607. Lingaas F; Claim 18; SEQ ID NO 607; 233pp; English Hoyum M, 17-JAN-2003; 2003WO-IB000112. 18-JAN-2002; 2002US-0349950P. 16-AUG-2002; 2002US-0404200P. (first entry) detection; primer; ss. Oreochromis niloticus. (GENO-) GENOMAR ASA WPI; 2003-627388/59 Slettan A, WO2003060160-A2. 15-JAN-2004 24-JUL-2003 Synthetic Lie O,

```
.
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rRNA; ribosomal RNA; primer; probe; detection; metabolism; aromatic; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAT40351-T40695 are probes/primers used for the detection of the 16S ragene of Corynebacterium sp. 01. Corynebacterium J1 has the ability to metabolise various organic compounds, esp. aromatic compounds and is therefore useful in certain chemical manufacturing processes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                - useful
                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Corynebacterium sp. Jl 16S rRNA gene and specific fragments primers and probes for detection of Corynebacterium sp. Jl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.6%; Score 13.2; DB 1; Length 19; 83.3%; Pred. No. 5.2e+02; ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                    Corynebacterium sp. Jl. 16S rRNA gene derived probe/primer.
                                                     3; Indels
Query Match
1.6%; Score 13.2; DB 1;
Best Local Similarity 83.3%; Pred. No. 4.8e+02;
Matches 15; Conservative 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 19 BP; 6 A; 6 C; 4 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 6; Page 3; 19pp; Japanese.
                                                                                                     169 ATCCCGCTGACAGTCACA 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    739 GIGTAGCCTIGGICCTTA 756
                                                                                                                                                     1 Arcccccraacacacrca 18
                                                                                                                                                                                                                                                                                   BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18 Greradecerderedra 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94JP-00210979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94JP-00210979
                                                                                                                                                                                                                                                                              AAT40397 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 1.6
Best Local Similarity 83.3
Matches 15, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1996-203171/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CANO ) CANON KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JP08070896-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                   18-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-MAR-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                   AAT40397;
                                                                                                                                                                                                                                   RESULT 663
                                                                                                                                                                                                                                                           AAT40397,
```

```
the invention. The method of the invention is for produced by the method of the invention is for producing capped RNA or RNA analogues. The method comprises reacting a RNA or analogue oligonucleotide with a phosphate addition agent to form a RNA or analogue oligonucleotide with a phosphate addition agent to form a RNA or analogue of is important for mRNA meturation, initiation of translation, and protects the mRNA against various RNases present in the cell. The capped RNA analogue is an influenza endonuclease aptamer, useful for treating or preventing an influenza infection in an animal. The synthetic capped RNA are substrates for virally encoded endonuclease associated with influenza virus. The short non-extendible (due to their length or because of the modification of the 3' end of the oligo) RNA molecules are potent inhibitors of the cleavage of capped RNA by influenza endonuclease. They may be used to investigate viral and cellular mechanisms of transcription/translation, or mRNA maturation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mass spectrometry; diagnosis; detection; biological sample; infection; genetic disease; chromosomal abnormality; identification; heredity; pathogenic organism; telomerase activity; oncogene mutation; cancer-specific sequence; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Production of capped RNA or analogues - useful as substrates for influenza virus associated virally encoded endonuclease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 13.2; DB 1; Length 19;
Pred. No. 5.2e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 19 BP; 3 A; 7 C; 4 G; 0 T; 5 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mass spectrometric analysis primer SEQ ID NO:102.
                                                                                                                             /*tag= b
/mod_base= 2'-0-methylcytidine
                                                                /mod_base= triphosphorylated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Olsen DB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 18; Page 14; 39pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             768 GAACTGGAGAAGAGTGT 785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Benseler F, Cole JL, Kuo LC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAV39569 standard; cDNA; 19 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACTGGACCAGAAGTGT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match 1.6%;
Local Similarity 83.3%;
es 15; Conservative C
                                                                                                                                                                                                                                                                                                                                                                     96WO-US008394
                                                                                                                                                                                                                                                                                                                                                                                                                                  95US-00480068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-SEP-1998 (first entry)
                                *tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MERI ) MERCK & CO INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1997-051868/05.
modified_base
                                                                                                modified_base
                                                                                                                                                                                                                                                                                                                                                                     03-JUN-1996;
                                                                                                                                                                                                                                    WO9640159-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-MAY-1998,
                                                                                                                                                                                                                                                                                                     19-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV39569;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV39569/

ID AAV33

XA AC AAV3

XX DT 28-SI

XX Mass

XW Gene

XW Gene

XW Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX Canc

XX
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

```
A process has been developed for determining the sequence of a target nucleic acid. The process comprises: (i) generating at least two mucleic acid. The process comprises: (i) generating at least two mucleic acid. The process is used nucleic acid, and (ii) analysing F by mass spectrometry (MS). The sequences in AAV39483 to AAV39592 are specifically claimed primers for use in the mass spectrometric analysis of the above process. The process is used to detect genetic diseases (e.g. thanssemia, Duchenne muscular dystrophy, Alzheimer's disease, cystic fibrosis and many others) or chromosomal abnormalities (or predisposition); infections and cancers; also for establishing comparibility, and in genetic fingerprinting. Compared with known neuroblastoma, detecting telomerase, determining family relationships and HLA compatibility, and in genetic fingerprinting. Compared with known methods using MS, this process requires fewer specific reagents and is better suited to automation. Extended primers are shorter; primer annealing is more efficient and the process allows detection of many sequences simultaneously
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Biallelic marker; human; high density disequilibrium map; disease; trait; identification; Alzheimer's disease; drug response; drug efficacy; drug toxicity; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                              Sequencing nucleic acid by mass spectrometric analysis - for deternocleic acids, telomerase activity, oncogene mutations, or cancer specific sequences, for diagnosis of disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 1.6%; Score 13.2; DB 1; Length 19; Best Local Similarity 83.3%; Pred. No. 5.2e+02; Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 19 BP; 3 A; 6 C; 8 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human genome biallelic marker primer 220.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 48; Page 271; 478pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              204 CIGGGITCCCAGCCCTCT 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19 CAGGGTCCCCAGGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX52863 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-JUN-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAX52863;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX52863
ò
```

ô

Gaps

ö

WO9904038-A2

Koster H, Tang K, Fu D, Siegert CW, Little DP, Higgins GS; Braun A, Damhoffer-Demar B, Jurinke C, Van Den Boom D, Xiang G;

(SEQU-) SEQUENOM INC.

WPI; 1998-286975/25.

Braun A, Lough DM;

96US-00746390. 96US-00746036. 96US-00746055. 97US-00786988. 97US-00933792. 97US-00947801.

23-JAN-1997; 23-JAN-1997; 19-SEP-1997; 08-OCT-1997;

06-NOV-1996; 06-NOV-1996; 06-NOV-1996;

97WO-US020444 96US-00744481

06-NOV-1997;

Cohen D,

```
The present invention relates to a hairpin or hammerhead ribozyme, designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase other than cell-cycle dependent kinases CDKI, PorNA and Cyclin B1.

Representative examples of ribozyme recognition sites are given in AAABGA15 to AAABG787. The ribozyme of the invention is useful for inhibiting restenosis by introduction of the ribozyme into cells. The ribozyme is resistant to endonuclease activity and hence is efficient in
                                                                                                                                              The present invention relates to a hairpin or hammerhead ribozyme, designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1. Representative examples of ribozyme recognition sites are given in AAA86745 to AAA86787. The ribozyme of the invention is useful for inhibiting restenosis by introduction of the ribozyme into cells. The ribozyme is resistant to endonuclease activity and hence is efficient in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ribozyme; hairpin; hammerhead; gene therapy; vasotropic; restenosis; ss.
                New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1, PCNA and Cyclin B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1, PCNA and Cyclin B1.
                                                                                                                                                                                                                                                                                                                                                                                               Score 13.2; DB 1; Length 19;
Pred. No. 5.2e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                           Sequence 19 BP; 4 A; 9 C; 2 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Robbins JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cyclin D1 ribozyme binding site #62.
                                                                                                             Disclosure; Page 74; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 74; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Barber JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              771 CTGGAGAAGAAGTGTGAG 788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18 CTGGAGAGGAAGCGTGTG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US028772.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0110954P.
                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 83.3%;
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAA84295 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                restenosis treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (IMMU-) IMMUSOL INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Welch PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2000-412314/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200032765-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mammalia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tritz R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 66
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention describes a novel method for obtaining a set of biallelic markers represented in AAX52533-X52632 and AAX52833-X52843 for use in constructing a high density equilibrium map of the human genome. The method involves (a) obtaining a nucleic acid library comprising genomic DNA fragments comprising the full genome or a portion (b) determining the order of genomic DNA fragments in the genome, (c) determining the cequence of selected regions of the genomic DNA fragments and (d) identifying nucleotides in the genomic DNA fragments and (d) identifying nucleotides in the genomic DNA fragments which vary between inviduals, thereby defining a set of biallelic markers. The methods can be used for identifying traits such as disease (e.g. Alzheimer's clisease), drug response, drug efficacy and drug toxicity. They can be used for selecting an individual for inclusion in a clinical trial. The method is used to map the position of genes in a genome (preferably the human genome). The sequences described in AAX2633-X52832 and AAX52844-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ribozyme; hairpin; hammerhead; gene therapy; vasotropic; restenosis; ss.
                                                                                                                                                                                                                                                                                         Production of biallelic markers - by obtaining a genomic DNA library, determining the order and sequence of DNA fragments and identifying nucleotides which vary between individuals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 13.2; DB 1; Length 19;
Pred. No. 5.2e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seguence 19 BP; 6 A; 4 C; 8 G; 1 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cyclin D1 ribozyme binding site #63.
                                                                                                                                                                                                     Tchoumakov
                                                                                                                                                                                                                                                                                                                                                                                      Claim 137; Page 286; 288pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             253 AGGACTTAGACAGGAGCA 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 AGGCTCAGAGAGGAGCA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.6%;
                                             98WO-IB001193,
                                                                                        97EP-00401740.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAA84296 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 83.3
Matches 15; Conservative
                                                                                                                                                                                                   Blumenfeld M,
                                                                                                                                                                                                                                                WPI; 1999-132278/11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200032765-A2
                                                                                                                                                          GEST ) GENSET
                                                                                                           21-APR-1998;
                                             17-JUL-1998;
                                                                                          18-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-DEC-2000
  28-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-JJN-2000
```

1 6% . Score 13 2: DB 1: Length 19:

Sequence 19 BP; 3 A; 9 C; 2 G; 5 T; 0 U; 0 Other;

Otherry Match

Robbins JM;

Barber JR,

Welch PJ,

Tritz R,

35/ A1001A-000C TON

(IMMU-) IMMUSOL INC

99WO-US028772 98US-0110954P.

06-DEC-1999; 04-DEC-1998;

AAA84296,

RESULT 667 AAA84296/c

ð g restenosis treatment

ö

Gaps

·,

in

```
99WO-US028772.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   40200032765-A2
                                                                                                                                                                                                         06-DEC-1999;
                                                                                                                                                                                                                                                                      04-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-DEC-1998;
                                                                                                                                                08-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA84761;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA84761/C
ID AAA84
THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SECTION OF THE SE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to a hairpin or hammerhead ribozyme, designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase other than cell-cycle dependent kinases CDKI, PCNA and Cyclin BI. Representative examples of ribozyme recognition sites are given in AAA82415 to AAA86787. The ribozyme of the invention is useful for inhibiting restenosis by introduction of the ribozyme into cells. The ribozyme is resistant to endonuclease activity and hence is efficient in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ribozyme, hairpin, hammerhead, gene therapy; vasotropic, restenosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1, PCNA and Cyclin B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ribozyme; hairpin; hammerhead; gene therapy; vasotropic; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 13.2; DB 1; Length 1
Pred. No. 5.2e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seguence 19 BP; 3 A; 6 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Robbins JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 82; 109pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cyclin F ribozyme binding site #29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cyclin F ribozyme binding site #28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Barber JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          466 AGCTCCAGGAACTTGGCA 483
                                                                                                                                                N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Agercerddaagerddea 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US028772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0110954P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.6%;
                                                                                                                                                crecaecaecerere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA84761 standard; DNA; 19
                                                                                                                                                                                                                                                                                                      AAA84760 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 83.3
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tritz R, Welch PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   restenosis treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (IMMU-) IMMUSOL INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-412314/35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200032765-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                         04-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-JUN-2000
                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA84761;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mammalia
                                                                                                                                                                                                                                                                                                                                                                AAA84760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             670
                                                                                                                                                                                                                                         RESULT 660
AAA884760/C
LID AAA88
XX AAAA8
DT 04-DD
XX KW Ribo
XX Mamm
XX MACO
XX MAMM
YX WO20
YX O6-D
XX O6-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D
XX O7-D

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

```
Ribozyme; hairpin; hammerhead; gene therapy; vasotropic; restenosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to a hairpin or hammerhead ribozyme, designed to cleave RNA encoding a cyclin or cell-cycle dependent kinases cuter than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1. Representative examples of ribozyme recognition sites are given in AAA83415 to AAA86787. The ribozyme of the invention is useful for inhibiting restenosis by introduction of the ribozyme into cells. The ribozyme is sefficient in substant to endonuclease activity and hence is efficient in
                                                                                                                                                                                                             New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves RNA encoding a cyclin or cell-cycle dependent Kinase other than CDK1, PCNA and Cyclin B1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves encoding a cyclin or cell-cycle dependent kinase other than CDK1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 13.2; DB 1; Length 19;
Pred. No. 5.2e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 19 BP; 3 A; 6 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Barber JR, Robbins JM;
                                                                                                            Robbins JM;
                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 82; 109pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cyclin F ribozyme binding site #29.
                                                                                                               Barber JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              714 GCCAAATTTCAGGAGCTG 731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-US028772.
98US-0110954P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0110954P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCAGCTTCCAGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA84761 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       restenosis treatment
                                                                                                            Tritz R, Welch PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tritz R, Welch PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (IMMU-) IMMUSOL INC.
                                                                                                                                                                   WPI; 2000-412314/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-412314/35
                                                   (IMMG-) IMMGSOF INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
```

A)

WO200032765-A2

Mammalia.

ö

Gaps

ô

Indels

Pred. No. 5.2e+02; ; Mismatches 3;

; 0

15; Conservative

Matches

Best Local Similarity

CTGGAGAAGAAGTGTGAG

771

ઠે

83.3%;

ö

272 CTTCAGAAAGTTGTTGAA 289

cricagaagaagiraaa 2

19

g

à

ВЪ.

AAZ73164 standard; DNA; 19

AAZ73164/c

RESULT

```
ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
0
                                                                    The present invention relates to a hairpin or hammerhead ribozyme, designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase other than cell-cycle dependent kinases CDK1, PCNA and Cyclin B1.
Representative examples of ribozyme recognition sites are given in AAA82415 to AAA86787. The ribozyme of the invention is useful for inhibiting restenosis by introduction of the ribozyme into cells. The ribozyme is resistant to endonuclease activity and hence is efficient in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to a hairpin or hammerhead ribozyme, designed to cleave RNA encoding a cyclin or cell-cycle dependent kinase other than cell-cycle dependent kinases. CDK1, PCNA and Cyclin B1.
Representative axamples of ribozyme recognition sites are given in AAA83415 to AAA86787. The ribozyme of the invention is useful for inhibiting restenosis by introduction of the ribozyme into cells. The ribozyme is resistant to endonuclease activity and hence is efficient in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ribozyme; hairpin; hammerhead; gene therapy; vasotropic; restenosis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New hairpin and hammerhead ribozyme for inhibiting restenosis, cleaves RNA encoding a cyclin or cell-cycle dependent kinase other than CDK1, PCNA and Cyclin B1.
                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                 Score 13.2; DB 1; Length 19;
Pred. No. 5.2e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
1.6%; Score 13.2; DB 1; Length 19;
Best Local Similarity 83.3%; Pred. No. 5.2e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                 Seguence 19 BP; 3 A; 6 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 19 BP; 4 A; 3 C; 3 G; 9 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Robbins JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cdc 25 hs ribozyme binding site #240.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 103; 109pp; English.
                                   Disclosure; Page 82; 109pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Barber JR,
                                                                                                                                                                                                                                                                                                                                           466 AGCTCCAGGAACTTGGCA 483
                                                                                                                                                                                                                                                                                                                                                                             18 AGCTCCTGGAAGCTGGCA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US028772.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0110954P.
                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 83.3%;
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAA86132 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                 restenosis treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          restenosis treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Welch PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-412314/35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (IMMU-) IMMUSOL INC
PCNA and Cyclin B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-JUN-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tritz R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAA86132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mammalia.
                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 672
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA86132/c
```

```
invention, which contain a polymorphic base at position 24 of their nucleotide sequences. AAZ66579 to AAZ7740 represent amplification have a variety of uses: they can be used for high density mapping of the human genome, and in complex association studies and haphoryping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agence acting on a disease states. Identification of the targets for the development of pharmaceutical agence acting on a disease as well as other treatment. N.B. The SEO ID NOS 2852, 2913, 2974, 3035, 3056, 3157, 3227, 3297 and 3337, are not actually given a sequence in the Sequence Listing from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel biallelic markers used to construct a high density disequilibrium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ65654 to AAZ69578 represent human biallelic markers from the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                    Human biallelic marker upstream amplification primer SEQ ID NO:7520,
                                                                                                                                    Human genome, biallelic marker; high density disequilibrium map; genomic map; haplotype; phenotype; polymorphic base; gentotyping; haplotyping; hybridisation; identification; characterisation; amplification; single nucleotide polymorphism; SNP; PCR primer; amplification; single nucleotide polymorphism; SNP; PCR primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.6%; Score 13.2; DB 1; Length 19; ilarity 83.3%; Pred. No. 5.2e+02; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 19 BP; 3 A; 7 C; 2 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chumakov I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 9; Page 1834; 2745pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18 AAGTAAGTGGCAGAACTG 1
                                                                                                                                                                                                                                                                                                                                                                                          98US-0082614P.
98US-0109732P.
                                                                                                                                                                                                                                                                                                                                                        99WO-IB000822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        756 AAGGAGATGGCAGAACTG
                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Blumenfeld M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        map of the human genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-013267/01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention
                                                                                                                                                                                                                                                                                                                                                                                                                                             (GEST ) GENSET
                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                  W09954500-A2
                                                                                                                                                                                                                                                                                                                                                        21-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                          21-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                             23-NOV-1998;
                                                                    10-SEP-2001
                                AAZ73164;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cohen D,
ò
```

ö

AAC65072/c ID AAC65072 standard; DNA; 19 BP.

RESULT 674

```
Neurofibromatosis type 1; NF1; peripheral blood lymphocyte; PBL; EBV; ss; Epstein-Barr virus; B-lymphoblastoid cell; phytchaemagglutinin; PHA; frame shift mutation; mis-sense mutation; silent mutation; PCR primer; sequencing primer.
                                                                                              Antisense oligonuclectide; RNA molecule cleavage; immune activation; bcl; protein kinase C; PKC; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention is concerned with antisense oligonucleotides containing a number of degenerate bases and with a modified backbone which can be used to direct cleavage of target RNA molecules. The use of degenerate bases reduces the risk of immune activation following injection into animals, which causes deleterious side effects associated with many therapeutic antisense oligonucleotides. Sequences AAC65029-C65077 are antisense oligonucleotides and PCR primers used in assays to demonstrate the effects of the sequences of the invention
                                                                                                                                                                                                                                                                                                                                                                                Antisense oligonucleotides containing degenerate and/or universal bases, and modified backbone linkages is useful to target therapeutic genes, preferably anti-apoptosis or chemoresistance genes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Neurofibromatosis (NF1) genomic DNA sequencing primer #89.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 19 BP; 1 A; 5 C; 9 G; 2 T; 0 U; 2 Other;
                                                                     Human bcl genes antisense sequence #16.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 7; Fig 3; 32pp; English
                                                                                                                                                                                                                                                                                            (OASI-) OASIS BIOSCIENCES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAS05037 standard; DNA; 19 BP
                                                                                                                                                                                                                                     07-APR-2000; 2000WO-US009293.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-SEP-2001 (first entry)
                                          12-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                          Brown BD, Riley TA;
                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-679502/66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity es 12; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200129251-A2
                                                                                                                                                                             WO200061810-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                   08-APR-1999;
                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-APR-2001.
                                                                                                                                                                                                         19-OCT-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAS05037;
            AAC65072;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
```

99US-0128377P.

```
The sequences represent neurofibromatosis type 1 (NF1) cDNA fragments and manalysis of the NF1 gen in mutation analysis of NF1. A create for mutation analysis of NF1. A method for mutation analysis of the NF1 gene involves isolating peripheral blood lymphocytes (PB1) of a patient, establishing Epsteing peripheral blood lymphocytes (PB1) of a patient, establishing Epstein. Sar virus (EBV) transformed B-lymphoblastoid cell line with isolated compared to the short-term culturing of PBL by phytohaemaggluinin (PHA) is then amplified and peptide fragments are obtained by in virus cynthesis inhibitor and immediately extracting RNA from the cultures. The synthesis inhibitor and immediately extracting RNA from the cultures. The conscription/translation of amplified fragments are obtained by in virus constructions consorted in virus is used for detection of frame shift, missense and silent mutations consorted in virus is useful in screening for NP1 control of any or agent can be identified by a screening process in which condition is monitored in virus using cell systems in which the defection of specific defects can be used to design defective NP1 gene is expressed. The sequences can be used to design defective NP1 gene is expressed. The sequences can be used to design defective NP1 protein and of specific defects of the various NP1 mutations that are considered in virus for reliable analysis of mutations that are difficult to detect due to unstable or wrong-spliced transcripts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human, ribozyme therapy, hairpin ribozyme; hammerhead ribozyme; recognition site; target; ribozyme binding site; eye disease; vulnerary; proliferative disease; skin disease; psoritasis; diabetic retinopathy; cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP; matrix metalloproteinase; growth factor; reductase; scarring; cytostatic; antisporiatic; dermatological; antiseborrheic; antidiabetic; virucide; antisickling; ophthalmological; keratolytic; gene therapy; viral wart; atopic dermatitis; actinic keratosis; squamous cell carcinoma; basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
                                                                                                                                                                                                                                            Mutation analysis of NF1 gene by treating BBV transformed lymphoblastoid cell lines formed with lymphocytes of patient with protein synthesis inhibitor, and obtaining peptides by translating amplified RNA from cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 19 BP; 3 A; 9 C; 0 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . Match 1.6%; Score 13.2; DB 1; Local Similarity 83.3%; Pred. No. 5.2e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cyclin D1 ribozyme binding site SEQ ID NO:1881.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                Claim 9; Page 64; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  764 GGCAGAACTGGAGAAGAA 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAH59457 standard; DNA; 19 BP
18-OCT-2000; 2000WO-EP010255
                                             99EP-00870216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19 GGGTGAAGTGGAGAAGAA
                                                                   05-JUN-2000; 2000EP-00870122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15; Conservative
                                                                                                                                                            Ë
                                                                                                                                                            Messiaen L, Callens
                                                                                                                                                                                                          WPI; 2001-300341/31
                                                                                                               UYGE-) UNIV GENT.
                                                18-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAH59457;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAH59457,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

ö

ö

0; Gaps

1.6%; Score 13.2; DB 1; Length 19; 85.7%; Pred. No. 5.2e+02; active 2; Mismatches 0; Indels

420 CTCCGGCTGCCCC 433

Conservative

14 CYCCGGCTGCCYCC 1

sickle cell retinopathy; ss.

Homo sapiens Synthetic.

. :***

Treating proliferative skin or eye diseases and scarring, using ribozymes that cleave RNA encoding cytokines involved in inflammation, matrix metalloproteinases, growth factors and cell-cycle dependent kinases.

26-OCT-2000; 2000WO-US029500.

WO200130362-A2. Homo sapiens. Synthetic.

03-MAY-2001

99US-0161532P

26-OCT-1999;

Tritz R;

Robbins JM,

(IMMU-) IMMUSOL INC.

WPI; 2001-300427/31.

```
The present invention describes a method for treating a proliferative skin or eye disease and scarring. The method involves administering a ribozyme (I) which cleaves RNA encoding a cytckine involved in inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle dependent kinase, growth factor or a reductase, or administering a nucleic acid molecule (II) comprising a promoter operably linked to a nucleic acid segment encoding (I). (I) can have antipsoriatic, antisickling, centratological, cytostatic, antiseborrheic, antidabetic, antisickling, ophthalmological, vylostatic, keratolytic and virucide activities, and cleaves RNA encoding (II) are useful for treating proliferative skin diseases such as psoriasis, atopic dermatitis, actinic keratosis, cleaves basal cell carcinoma and viral or seborrheic wart. They can also be used for treating proliferative eye diseases such as diabetic retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of prematurity and retinal detachment, and for treating and preventing scar scarring such as keloid, adhesion and hypertrophic or hypertrophic burn scar. AAH57877 to AAH67099 represent sequences used in the cxemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                Treating proliferative skin or eye diseases and scarring, using ribozymes that cleave RNA encoding cytokines involved in inflammation, matrix metalloproteinases, growth factors and cell-cycle dependent kinases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human, ribozyme therapy; hairpin ribozyme; hammerhead ribozyme; recognition site; target; ribozyme binding site; eye disease; vulnerary; proliferative disease; skin disease; psoriasis; diabetic retinopathy; cytokine; inflammation; cell-cycle dependent kinase; cyclin, MMP; matrix metalloproteinase; growth factor; reductase; scarring; cytostatic; antipisoriatic; dermatological; antiseborrheic; antidiabetic; virucide; antipisoriatis; ophthalmological; keratolytic; gene therapy; virucide; actopic dermatitis; actinic keratosis; squamous cell carcinoma; seborrheic wart; vitreoretinopathy; scar; sickle cell retinopathy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.6%; Score 13.2; DB 1; Length 19;
83.3%; Pred. No. 5.2e+02;
ive 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 19 BP; 3 A; 9 C; 2 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cyclin F ribozyme binding site SEQ ID NO:2347.
                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; Page 208; 408pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    771 CTGGAGAAGAGTGTGAG 788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAH59923 standard; DNA; 19 BP
                                                                                                      26-OCT-2000; 2000WO-US029500;
                                                                                                                                                 99US-0161532P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19 CTGGAGAGGAAGCGTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 83.33
                                                                                                                                                                                                                                 Robbins JM, Tritz R;
                                                                                                                                                                                                                                                                          WPI; 2001-300427/31.
                                                                                                                                                                                       (IMMU-) IMMUSOL INC.
                    WO200130362-A2.
                                                                                                                                               26-OCT-1999;
                                                              03-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAH59923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
```

```
The present invention describes a method for treating a proliferative skin or eye disease and scarring. The method involves administering a ribozyme (1) which cleaves RNA encoding a cytckine involved in inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle dependent kinase, growth factor or a reductase, or administering a nucleic acid molecule (II) comprising a promoter operably linked to a nucleic acid segment encoding (2). (1) can have antipsoriatic, christopathy. Neratolytic and virucide activities, and cleaves RNA encoding cytokine involved in inflammation. (1) can be used in gene therapy. (1) and (II) are useful for treating proliferative skin diseases such as positiasis, atopic dermatitis, actinic keratosis, also be used for treating proliferative eye diseases such as diabetic actionate, and viral or seborrheic wart. They can also be used for treating proliferative eye diseases such as diabetic retinopathy, virreoretinopathy, sickle cell retinopathy, retinopathy of prematurity and retinal detachment, and for treating and preventing scarring such as keloid, adhesion and hypertrophic or hypertrophic burn is a such as a seloid, adhesion and hypertrophic or hypertrophic burn is a such as for the such as each in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  recognition site; target; ribozyme binding site; eye disease; vulnerary; proliferative disease; skin disease; psoriasis; diabetic retinopathy; cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP; matrix metalloproteinase; growth factor; reductase; scarring; cytostatic; antisoriatic; dermatological; antisoborrheic; antidiabetic; virucide; antisiching; ophthalmological; keratolytic; gene therapy; viral wart; atopic dermattits; actinic keratosis; squamous cell carcinoma; seborrheic wart; vitreoretinopathy; scar;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; ribozyme therapy; hairpin ribozyme; hammerhead ribozyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.6%; Score 13.2; DB 1; Length 19; 33.3%; Pred. No. 5.2e+02; ve 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19 BP; 3 A; 6 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cyclin F ribozyme binding site SEQ ID NO:2347.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1; Page 242; 408pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            714 GCCAAATTTCAGGAGCTG 731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAH59923 standard; DNA; 19 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 GCCAGCTTCCAGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAH59923;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAH59923/c
ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

```
The present invention describes a method for treating a proliferative skin or eye disease and scarring. The method involves administering a cribozyme [1] which cleaves RNA encoding a cytokine involved in inflammation, metalloproteinase (MMP), cyclin, cell-cycle dependent kinase, growth factor or a reductase, or administering a nucleic acid molecule (II) comprising a promoter operably linked to a nucleic acid segment encoding (I). (I) can have antipsoriatic, christophalmological, cytostatic, antiseborrheic, antidiabetic, antisickling, cophthalmological, vulnerary, keratolytic and virucide activities, and cleaves RNA encoding cytokine involved in inflammation. (I) can be used in gene therapy. (I) and (II) are useful for treating proliferative skin diseases such as postiasis, atopic dermatitis, actinic keratosis, squamous or basal cell cardinoma and viral or sebortheic wart. They can also be used for treating proliferative eye diseases such as diabetic retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy, sickle cell retinopathy, retinopathy, sickle cell retinopathy, retinopathy and retinol addresion and hypertrophic or hypertrophic burn scarring such as keloid, addresion and hypertrophic or hypertrophic burn and some the sequences used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human, ribozyme therapy, hairpin ribozyme, hammerhead ribozyme, recognition site; target, ribozyme binding site; eye disease; vulnerary; proliferative disease, skin disease, psoriasis; diabetic retinopathy; cytokine; inflammation; cell-cycle dependent kinase; cyclin; MVF; matrix metalloproteinase; growth factor; reductase; scarring; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Treating proliferative skin or eye diseases and scarring, using ribozymes that cleave RNA encoding cytokines involved in inflammation, matrix metalloproteinases, growth factors and cell-cycle dependent kinases.
atopic dermatitis, actinic keratosis, squamous cell carcinoma, basal cell carcinoma, seborrheic wart, vitreoretinopathy, scar; sickle cell retinopathy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 13.2; DB 1; Length 19;
Pred. No. 5.2e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 19 BP; 3 A; 6 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cdc25 hs ribozyme binding site SEQ ID NO:3718.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1; Page 242; 408pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAH61294 standard; DNA; 19 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.6%;
                                                                                                                                                                                                                                                                        26-OCT-2000; 2000WO-US029500.
                                                                                                                                                                                                                                                                                                                         99US-0161532P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          466 AGCTCCAGGAACTTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19 AGCTCCTGGAAGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 83.3
                                                                                                                                                                                                                                                                                                                                                                                                                    Robbins JM, Tritz R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-300427/31.
                                                                                                                                                                                                                                                                                                                                                                    IMMU-) IMMUSOL INC
                                                                                                                                                                             WO200130362-A2.
                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                         26-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-SEP-2001
                                                                                                                                                                                                                          3-MAY-2001.
                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAH61294/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes a method for treating a proliferative skin or eye disease and scarring. The method involves administering a ribozyme (I) which cleaves RNA encoding a cytokine involved in inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle dependent kinase, growth factor or a reductase, or administering a nucleic acid molecule (II) comprising a promoter operably linked to a nucleic acid molecule (II) comprising a promoter operably linked to a cucleic acid molecule (II) comprising a promoter operably linked to a nucleic acid molecule (II) comprising a promoter operably linked to characological, cytostatic, antiseborrheic, antidiabetic, antisickling, characological, cytostatic, antiseborrheic, antidiabetic, antisickling, ophthalmological, vulnerary, keratolytic and virucide activities, and cleaves RNA encoding cytokine involved in inflammation. (I) can be used in gene therapy. (I) and (II) are useful for treating proliferative skin diseases such as pooriasis, atopic dermatitis, actinic keratosis, slope used for treating proliferative eye diseases such as diabetic retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of prematurity and retinal detechment, and for treating and preventing propertine and contracting and preventing propertine and contracting and preventing propertine and contracting and preventing propertine and contractine and con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human, ribozyme therapy; hairpin ribozyme; hammerhead ribozyme; recognition site; target; ribozyme binding site; eye disease; vulnerary; proliferative disease; skin disease; psoriasis; diabetic retinopathy; cytokine; inflammation, cell-cycle dependent kinase; cyclin; MMP; matrix metalloproteinase; growth factor; reductase; scarring; cytostatic; antipsoriatic; dermatological; antiseborrheic; antidiabetic; virucide; antisickling; ophthalmological; keratolytic; gene therapy; viral wart;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Treating proliferative skin or eye diseases and scarring, using ribozymes that cleave RNA encoding cytokines involved in inflammation, matrix metalloproteinases, growth factors and cell-cycle dependent kinases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     scarring such as keloid, adhesion and hypertrophic or hypertrophic burn scar. AAH57577 to AAH62099 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 13.2; DB 1; Length 19;
Pred. No. 5.2e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 19 BP; 3 A; 6 C; 6 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cyclin F ribozyme binding site SEQ ID NO:2346.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 1; Page 242; 408pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    466 AGCTCCAGGAACTTGGCA 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AgercergaAageregeA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.6%;
                                                                                                                                                                                                                             26-OCT-2000; 2000WO-US029500
                                                                                                                                                                                                                                                                             99US-0161532P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAH59922 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 83.3
               sickle cell retinopathy;
                                                                                                                                                                                                                                                                                                                                                                         Robbins JM, Tritz R;
                                                                                                                                                                                                                                                                                                                              (IMMU-) IMMUSOL INC.
                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-300427/31.
                                                                                                                                    WO200130362-A2
                                                Homo sapiens.
                                                                                                                                                                                                                                                                                26-OCT-1999;
                                                                                           Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAH59922;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
```

ö

Gaps

.. 0

```
The present invention describes a method for treating a proliferative skin or eye disease and scarring. The method involves administering a inflammation, matrix metallogracians of cytokine involved in inflammation, matrix metallogracians of CMPP), cyclin, cell-cycle chemation, matrix metallogracians of cytokine involved in inflammation, matrix metallogracies, or administering a nucleic acid segment encoding (I) comprising a promoter operably linked to a nucleic acid segment encoding (I). (I) can have antipsoriatic, dermatclogloid, cytostatic, antiseborrheic, antidiabetic, antisiching, obthalmological, vulnerary, kratcloytic and virucide activities, and cleaves RNA encoding cytokine involved in inflammation. (I) can be used in gene therapy. (I) and (II) are useful for treating proliferative skin diseases such as psoriasis, atopic dermatciis, actinic keratcosis, squamous or basal cell carcinoma and viral or seborrheic wart. They can also be used for treating proliferative eye diseases such as diabetic retinopathy, vitreoretinopathy, sickle cell retinopathy, retinopathy of prematurity and retinal detachment, and for treating and preventing carr. AAH$57977 to AAH$62099 represent sequences used in the exemplification of the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Treating proliferative skin or eye diseases and scarring, using ribozymes that cleave RNA encoding cytokines involved in inflammation, matrix metalloproteinases, growth factors and cell-cycle dependent kinases.
antipsoriatic, dermatological, antiseborrheic, antidiabetic, virucide, antisickling; ophthalmological, keratolytic, gene therapy, viral wart, atopic dermatifis, actinic keratosis; squamous cell carcinoma, basal cell carcinoma, seborrheic wart, vitreoretinopathy; scar; sickle cell retinopathy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 19 BP; 4 A; 3 C; 3 G; 9 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page 342; 408pp; English.
                                                                                                                                                                                                                                                                                                   26-OCT-2000; 2000WO-US029500.
                                                                                                                                                                                                                                                                                                                                                 99US-0161532P.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Tritz R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-300427/31.
                                                                                                                                                                                                                                                                                                                                                                                            (IMMU-) IMMUSOL INC
                                                                                                                                                                                                            WO200130362-A2.
                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                 26-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Robbins JM,
                                                                                                                                                                                                                                                     3-MAY-2001
                                                                                                                                                                   Synthetic.
```

ö Gaps ö 1.6%; Score 13.2; DB 1; Length 19; 83.3%; Pred. No. 5.2e+02; ive 0; Mismatches 3; Indels Conservative Local Similarity es 15; Conserv

```
289
                                                       ~
                                   272 CTTCAGAAAGTTGTTGAA
Query Match
                Matches
```

19 CTTCAGAAAGAAGTTAAA AAH59458 standard; DNA; 19 AAH59458; RESULT 681 AAH59458,

BP

Cyclin D1 ribozyme binding site SEQ ID NO:1882

(first entry)

10-SEP-2001

Human, ribozyme therapy; hairpin ribozyme; hammerhead ribozyme; recognition site; target; ribozyme binding site; eye disease; vulnerary; proliferative disease; skin disease; psoriasis; diabetic retinopathy;

HIV-1 related binding molecule oligonucleotide sequence SEQ ID NO:134.

(first entry)

22-MAY-2002

EXEXEXE

ABL88912;

ABL88912 standard; DNA; 19 BP.

Binding molecule, HIV-1; human immunodeficiency virus type 1;

The present invention describes a method for treating a proliferative skin or eye disease and scarring. The method involves administering a ribozyme [1] which cleaves RNA encoding a cytokine involved in inflammation, matrix metalloproteinase (MMP), cyclin, cell-cycle dependent kinase, growth factor or a reductase, or administering a nucleic acid molecule [11] comprising a promoter operably linked to a nucleic acid segment encoding [1]. [1] can have antipsociatic, antisicaling, dermatological, cytostatic, antiseborrheic, antidiabetic, antisickling, cophthalmological, vulnerary, keratolytic and virucide activities, and cleaves RNA encoding cytokine involved in inflammation. [1] can be used in gene therapy. [1] and [11] are useful for treating proliferative skin diseases such as psoriasis, atopic dermatitis, actinic keratoly can also be used for treating proliferative eye diseases such as diabetic retinopathy, virreoretinopathy, sickle cell retinopathy, retinopathy of prematurity and retinal detachment, and for treating and preventing carring such as keloid, adhesion and hypertrophic or hypertrophic burn and cortical in the ô matrix metalloproteinase; growth factor; reductase; scarring; cytostatic; antipsoriatic; dermatological; antieeborrheic; antidiabetic; virucide; antisickling; ophthalmological; keratolytic; gene therapy; viral wart; atopic dermatitis; actinic keratosis; squamous cell carcinoma; basal cell carcinoma; seborrheic wart; vitreoretinopathy; scar; sickle cell retinopathy; ss. Treating proliferative skin or eye diseases and scarring, using ribozymes that cleave RNA encoding cytokines involved in inflammation, matrix metalloproteinases, growth factors and cell-cycle dependent kinases. Gaps cytokine; inflammation; cell-cycle dependent kinase; cyclin; MMP; .; 0 Score 13.2; DB 1; Length 19; Pred. No. 5.2e+02; 3; Indels Sequence 19 BP; 4 A; 9 C; 2 G; 4 T; 0 U; 0 Other; 0; Mismatches exemplification of the present invention Example 1; Page 208; 408pp; English. 771 CTGGAGAAGAAGTGTGAG 788 26-OCT-2000; 2000WO-US029500. 99US-0161532P. 1.6%; 18 CTGGAGAGGAAGCGTGTG 15; Conservative Tritz R; WPI; 2001-300427/31. (IMMU-) IMMUSOL INC Query Match Best Local Similarity WO200130362-A2. Homo sapiens. 26-OCT-1999; 03-MAY-2001 Robbins JM, RESULT 682 Matches ABL88912 à ద

```
Collection of binding groups for determining or typing samples, especially clinical samples, has groups capable to identify essentially all members of the family of nucleic acids of relatively high significance.
                                                                                                               (AMST-) AMSTERDAM SUPPORT DIAGNOSTICS BV.
reverse transcriptase; binding group; ss.
                                                                                                                                                                                                             Disclosure; Page 39; 166pp; English.
                  Human immunodeficiency virus 1
                                                                              20-JUL-2000; 2000EP-00202611
                                                                                              20-JUL-2000; 2000EP-00202611
                                                                                                                                Loukachov VV, Van Gemen B,
                                                                                                                                                  WPI; 2002-156696/21.
                                           EP1174518-A1
                                                             23-JAN-2002
                                                                                                                                                                                                                                                                                                                                                       invention
                          Synthetic
```

ö The present invention describes a collection of binding groups for a family of nucleic acids comprising members of relative high and relative low significance, where the binding groups are selected to be capable to identify, alone or in combination, essentially all members of the family of nucleic acids of relatively high significance. The collection of binding groups is useful for typing of nucleic acid in a clinical sample, by contacting the nucleic acid with the collection and determining whether one or more binding groups bound to the nucleic acid of the sample. This method is useful for determining whether the sample comprises at least a part of a member of relatively high significance of a family of nucleic acids. The collection of binding groups is useful for diagnosing the severity of a disease caused by a pathogen containing a member of a family of nucleic acids. Abla89179 to Abha8921 represent Gaps oligonucleotide sequences used in the exemplification of the present . 0 1.6%; Score 13.2; DB 1; Length 19; 83.3%; Pred. No. 5.2e+02; ative 0; Mismatches 3; Indels Sequence 19 BP; 11 A; 2 C; 3 G; 3 T; 0 U; 0 Other; 15; Conservative Local Similarity Matches

```
905 TTTTAAGTGAAAGACAG 922
Query Match
                                            à
```

TATTAAGAAAAAAGACAG 19 N g

AAS18479 standard; DNA; 19 AAS18479;

12-MAR-2002 (first entry)

PCR primer VHP3 used for preparation of angiogenin constructs.

Immunoglobulin variable domain; complementarity determining region; CDR; receptor-binding portion of angiogenin; angiogenesis; solid tumour; anti-idiotype response; cancer; hyperproliferative disease; cytostatic; PCR primer;

sapiens. Synthetic WO200181579-A1

28-MAR-2001; 2001WO-US010115. 01-NOV-2001

05-APR-2000; 2000US-0194729P.

(EURO-) EUROCELTIQUE

 $Z_{\overline{J}}$ Zhang Burch RM, Soltis DA,

WPI; 2002-055356/07

New variant of immunoglobulin variable domain for treating cancer, comprises complementary determining region added or substituted with heterologous receptor-binding portion of angiogenin, and framework regions flanking CDR.

Goudsmit J;

Example 1; Page 55; 86pp; English.

The present invention relates to variants of an immunoglobulin variable domain, where the immunoglobulin variable domain comprises at least one domain, where the immunoglobulin variable domain comprises at least one complementarity determining region (CDR), and framework regions flanking the CDR. The CDR is added or substituted with at least one binding complements, which is a receptor-binding portion of angiogenin heterologous to CDR and is a binding sequence from a binding site of a binding pair. The variants of the invention are useful as an antibody based approach to inhibiting angiogenin activity or angiogenesis. Vaccines comprising an effective amount of the variants can be used to induce an anti-idiotype response. The variants and nucleic acids encoding the variants are useful in the treatment or prevention of cancers (e.g. solid tumours) and other they also useful in gene therapy. AAS18461-AAS18482 represent PCR primers used for preparation of angiogenin constructs in the methods of the present invention

Sequence 19 BP; 2 A; 5 C; 6 G; 6 T; 0 U; 0 Other;

Gaps . 0 1.6%; Score 13.2; DB 1; Length 19; 83.3%; Pred. No. 5.2e+02; tive 0; Mismatches 3; Indels Query Match
Best Local Similarity 83.3
Matches 15; Conservative

ö

446 GCCAGATGCCTTCCAGGA 463 N 19 GCCAGAAGCCTTGCAAGA

ð

RESULT 68 ABS64456

ВР.

ABS64456 standard; DNA; 19 (first entry) 15-NOV-2002

Human TGF-beta binding PCR primer SR3.

Parkinson's disease, Huntington's disease, neurological disorder, schizophrenia, manic depression, mental retardation, angina pectoris; cardiovascular disease, acute heart failure, myocardial infarction; muscular disease, muscular disease; photoreception; deafness; keratinisation disorder; cancer; ovarian cancer; melanoma; immunological disorder; inflammatory disease; immune disease; diabetes; bacterial infection; fungal infection, protozoal infection; obesity; viral infection; reproductive system disorder; metabolic disturbance; anorexia, wasting disorder; chronic disease; infectious disease; dyslipidaemia; TGF-beta binding; cloning; PCR; primer; ss. Human; NOVX; neurodegenerative disease; Alzheimer's disease; anxiety;

Homo sapiens

WO200264791-A2

antisense; lung dysfunction; nasal airway dysfunction;

schu568-1.rng

```
antinflammatory steroid, ubiquinone, antinflammatory, antiallergic, antiasthmatic; hypotensive; immunosuppressive, cytostatic; gene therapy, antisense gene therapy; respiratory; lung, adenosine sensitivity, adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.
                        Human IL5-R oligonucleotide sequence.
                                                                                                                                                                                                                                                                                                                                                                                                        23-APR-2002; 2002WO-US013135.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-APR-2001; 2001US-0286137P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (EPIG-) EPIGENESIS PHARM INC
                                                                                                                                                                                                                                                                                                    WO200285308-A2.
                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                       31-OCT-2002
The present invention relates to new NOVX polypeptides. The polypeptides, XX medicament for treating or preventing in the manufacture of a medicament for treating or preventing neurodegenerative disease (e.g. Alzheimer's disease, Parkinson's disease, or Huntington's disease).

C. Alzheimer's disease, Parkinson's disease, or Huntington's disease (e.g. acute heart failure, cangina pectoris or myocardial infarction), muscular diseases and diseases (including those involving photoreception, deafness and keratinisation disorders), cancer (e.g. acute heart failure, angina pectoris or myocardial infarction), muscular diseases and disorders. Infammatory and immune diseases, carrier in manunological disorders, inflammatory and immune diseases, bacterial, fungal, protozoal and viral infections, and reproductive system disorders. The proteins of the invention may be used to screen drugs or compounds that modulate the NoVX protein activity or expression, as well as to treat disorders characterised by insufficient or excessive production of NoVX protein or protein forms that have decreased or production of NoVX protein or protein forms that have decreased or wasting disorders associated with chronic diseases and various cancers, chesting diseases and various dyslipidaemias. The nucleic acid infections may be used in chromosome mapping, identifying an individual from minute biological samples (tissue typing), and in common renorearies a clongical samples the inventention of a biological sample in the present multipe propertion of reminer that was used in the methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                          Gorman L, Grosse WM;
Macdougall JR;
ger DK, Shimkets RA;
Vernet CAM, Voss EZ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence represents a cloning PCR primer that was used in the methods of
the invention for amplification of the NOVX TGF-beta binding gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New NOVX polypeptides and polynucleotides useful for treating or preventing e.g. neurodegenerative diseases, neurological disorders, cardiovascular diseases, muscular diseases and disorders, or immunological diseases.
                                                                                                                                                                                                                                                                                                                                                       Casman SJ;
                                                                                                                                                                                                                                                                                                                                               Alsobrook JP, Anderson DW, Burgess CE, Boldog FL, Casman SJ Colman SD, Edinger SR, Ellerman K, Gerlach V, Gorman L, Gr Guo X, Herrmann JL, Kekuda R, Lepley DM, Li L, Macdougall Millet I, Pena CEA, Peyman JA, Rastelli L, Rieger DK, Shim Smithson G, Spytek KA, Stone DJ, Tchernev VT, Vernet CAM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ch 1.6%; Score 13.2; DB 1; Length 19; Similarity 83.3%; Pred. No. 5.2e+02; 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19 BP; 5 A; 5 C; 7 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 3; Page 286; 299pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Spytek KA, Stone D. Zhong H, Zhong M;
                                                                                                                   14-DEC-2000; 2000US-025648P.
15-MAY-2001; 2001US-0291037P.
08-UNN-2001; 2001US-0297173P.
29-AUG-2001; 2001US-031553P.
01-OCT-2001; 2001US-0315639P.
                                             10-DEC-2001; 2001WO-US048369.
                                                                                              2000US-0254329P
                                                                                                                                                                                                                                                                                                  (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-643486/69.
                                                                                                                                                                                                                                                                                                                                                                                                  Guo X, Herrma
Millet I, Pen
Smithson G, S
Zerhusen BD,
                                                                                              08-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loca
Matches
```

```
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the intitation coodon, coding regalon, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubjudinone. A composition of the invention has anctiniflammatory, antiallergic, antiathmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a immunosuppressive, and cytostatic activity. The composition may have a preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an preventing sensitivity to adenosine, reducing levels of adenosine receptor, producing sensitivity to adenosine, reducing levels of adenosine receptor, producing sensitivity to adenosine, reducing levels of ubjudinone or lung surfactant in a subject, s tissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence date for this patent is not represented in the printed of form the form will be the form with the form will be the form of the form of the form of the form of the form of the form will be the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                   Pharmaceutical composition for treating ailments associated with impaired
                                                                                                                                                                                                                                                                                                                                                                            or
                                                                                                                                                                                                                                                                                                                     respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
           Aguilar D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.6%; Score 13.2; DB 1; Length 19; 83.3%; Pred. No. 5.2e+02; ive 0; Mismatches 3; Indels
           Pabalan J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 19 BP; 3 A; 4 C; 8 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; SEQ ID NO 12811; 872pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          at ftp.wipo.int/pub/published_pct_sequences
           Katz E,
Li Y, Sandrasagra A, Ka
Tang L, Shahabuddin S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  407 GCTCCAGCAGGCTCTCCG 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCCAGCAGCACTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15; Conservative
                                                                                                                                                          WPI; 2003-229219/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                        ubiquinone
     Nyce JW,
Miller S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACD28194/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
```

ACD28194 standard; DNA; 19

(first entry)

08-OCT-2003

ACD28194;

HXXXH

302 GGCCCTGCATGGGAAGA 319

ð d

19

GGCCCTGCACTGGAAGGA

BP

ABZ97569 standard; DNA; 19

685

ABZ97569/ RESULT

(first entry)

17-OCT-2003 ABZ97569;

SXXXE

Fri

05-APR-2001; 2001US-02818659F.
06-APR-2001; 2001US-0281906F.
10-APR-2001; 2001US-02829300P.
10-APR-2001; 2001US-0282934P.
11-APR-2001; 2001US-0282934P.
11-APR-2001; 2001US-0283512P.
11-APR-2001; 2001US-0283512P.
11-APR-2001; 2001US-028351P.
12-APR-2001; 2001US-028569P.
13-APR-2001; 2001US-028628P.
13-APR-2001; 2001US-028922P.
13-APR-2001; 2001US-0299276P.
14-NOV-2001; 2001US-039464P.
15-SEP-2001; 2001US-039464P.
15-SEP-2001; 2001US-039464P.
16-NOV-2001; 2001US-03324802P.
17-OCT-2001; 2001US-033240P.
14-NOV-2001; 2001US-033240P.
14-NOV-2001; 2001US-033211P.
16-AN-2002; 2001US-033211P.
16-AN-2002; 2001US-033211P.
16-AN-2002; 2002US-0335251P.
16-AN-2002; 2002US-0335251P.

```
The present invention discloses a cDNA sequence of human repair gene DNA polymerase beta, which is a specific representation of DNA polymerase beta in oesophagus cancer. The protein coded by it has fully lost the DNA repair activity of DNA polymerase beta. It can be used for early diagnosis and gene therapy of esophagus cancer. This sequence represents a human DNA polymerase beta associated oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; NOVX; PCR; ss; metabolic disorder; cardiomyopathy; diabetes; ASD; hypertension; congenical heart defect; aortic stenosis; valve disease; putrial septal defect; atrioventricular canal defect; ductus arteriosus; pulmonary stenosis; subsortic stenosis; ventricular septal defect; VSD; tuberous sclerosis; scleroderma; atherosclerosis; infectious disease; backinson's disease; lumnue disorder; haematopoietic disorder; primer; haemophilia; hypercoagulation; Crohn's disease; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human DNA polymerase beta mutant gene and its corresponding protein
                                Human repair gene DNA polymerase beta related oligonucleotide #5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.6%; Score 13.2; DB 1; Length 19;
83.3%; Pred. No. 5.2e+02;
iive 0; Mismatches 3; Indels
                                                                                                 Human; repair gene; DNA polymerase beta; oesophagus cancer;
DNA repair activity; gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 19 BP; 3 A; 7 C; 3 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 2; Page 9 (Disclosure); 11pp; Chinese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           830 TGAAGCTGGTACCAGAAC 847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18 rgaaggaggraccaggac 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human NOVX DNA PCR primer #29
                                                                                                                                                                                                                                                                                                                                                                                                          24-AUG-2001; 2001CN-00128374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-AUG-2001; 2001CN-00128374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABX72318 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-JUN-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhao G, Zhao Q;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 83.3
es 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UYZH-) UNIV ZHENGZHOU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-240398/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200281498-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                   Unidentified
                                                                                                                                                                                                                                                                        CN1366047-A.
                                                                                                                                                                                                                                                                                                                                         28-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABX72318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ζ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABX72318/C
IID ABX723
XA AC ABX723
XX AC ABX723
XX AC ABX723
XX AC ABX723
XX Human;
XX Human;
XW Hypert
XW Hypert
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XW Patrial
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATRIAL
XY PATR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
ò
```

ö

Gaps

ö

```
The invention relates to human polypeptides, termed NOVX, and the polynucleotides encoding them. The polypeptides and polynucleotides are useful for diagnosing disease, and screening for potential therapeutic agents. The sequences are useful for treating metabolic disorders, cardiomyopathy, diabetes, hypertension, congenital heart defects, aortic stenosis, atraial septal defect (ASD), arrioventricular canal defect, ductus arterisous, pulmonary stenosis, subsortic stenosis, ventricular septal defect (VSD), valve diseases, tuberous sclerosis, scleroderma, atherosclerosis, obesity, infectious disease, anorexia, neurodegenerative disorders. Alzheimer's disease, Parkinson's disease, immune disorders, haematopoietic disorders, haematopoietic disorders, haematopoietic disorders, haemophilia, hypercoagulation, Crohn's disease and cancer. This sequence represents a PCR primer used to amplify a human NOVX polymucleotide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Guo X, Kekuda R, Miller CE, Malyankar UM, Spytek KA;
Patturajan M, Liu X, Gusev VY, Li L, Vernet CAM, Zerhusen BD;
Gorman L, Shenoy SG, Pena CEA, Smithson G, Burgess CE, Gerlach V;
Padigaru M, Shimkets RA, Gangolli EA, Taupier RJ, Casman SJ, Ji W;
Anderson DW, Leite MW, Rastelli L, Edinger SR, Stone DJ;
Macdougall JR, Rothenberg ME, Mazur A, Millet I, Peyman JA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated NOVX polypeptide useful for treating atherosclerosis, metabolic disorders, diabetes, obesity, infectious disease, anorexia, neurodegenerative disorders, Alzheimer's disease and cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 19 BP; 3 A; 7 C; 4 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 83; Page 396; 666pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-046858/04.
```

ö

Gaps

..

Score 13.2; DB 1; Length 19; Pred. No. 5.2e+02; 0; Mismatches 3; Indels

Query Match
Best Local Similarity 83.3%;
Matches 15; Conservative

03-APR-2001; 2001US-0281086P. 03-APR-2002; 2002WO-US010780

17-0CT-2002,

Query Match

ABZ22630 standard; DNA; 19 BP. ABZ22630

ABZ22630;

(first entry) 31-MAR-2003 Mouse Unc-51-like kinase 1 (ULK-1) reverse PCR primer SEQ ID NO:13.

Uncoupling protein, UCP, UNC-51-like kinase, ULK-1, ULK-2, ROWAl, regulator of mitochondrial activity, mitochondrial 2TM; mitochondrial, organele metabolism, anorectic; immunomodulator; antidepressant; antidiabetic; metabolism is intochondrial disorder; obesity; adipositas; eating disorder; body weight disorder; bulimia nervosa; anorexia nervosa; cachexia; wasting; pancreatic dysfunction; diabetes; gene therapy; PCR primer; ss.

WO200279478-A2

10-OCT-2002

27-MAR-2002; 2002WO-EP003465.

30-MAR-2001; 2001EP-00108215. 16-JUL-2001; 2001EP-00117228. 23-JUL-2001; 2001EP-00117870.

(DEVE-) DEVELOGEN ENTWICKLUNGSBIOLOGISCHE FORSCH,

Ciossek T; Steuernagel A, Broenner G,

WPI; 2003-103276/09.

New Unc-51, regulator of mitochondrial activity 1 and/or mitochondrial 2TM nucleic acids or polypeptides, useful for diagnosing, treating or preventing a metabolic or a mitochondrial disorder, e.g. obesity, bulimia or achexia.

New thrombopoietin synthebodies, useful for stimulating proliferation, growth, or differentiation of hematopoietic cells, for treating or preventing hematopoietic or immune disorders, e.g. thrombocytopenia.

Example 1; Page 73; 97pp; English.

Example 6; Page 74; 102pp; English.

The present invention describes a pharmaceutical composition comprising carriers, diluents and/or adjuvants, together with any of the following: a nucleic acid molecule of the Unc-51; regulator of mitochondrial activity 1 (ROWAL); and/or mitochondrial 2TM gene family (particularly Unc-51-like kinase), a polypeptide encoded by it, a fragment or variant of them, or an antibody, an aptamer or another receptor recognising them. Unc-51, ROWAL and 2TM proteins have anorectic, immunomodulator, antidepressant and antidiabetic activities, and can be used in gene therapy. The composition is useful for manufacturing an agent for detecting and/or verifying, disgorder, immunomodulator, antidepressant and antidiabetic activities, and can be used in gene therapy. The composition is useful for manufacturing an agent for preventing a metabolic disorder or a mitochondrial disorder, e.g. obesity, adipositas, eating/body weight disorders (e.g. bulimia nervosa or anorexia nervosa), cachexia (exp. bulimia nervosa or anorexia nervosa), cachexia (exp. bulimia nervosa or anorexia nervosa), cachexia (exp. bulimia nervosa or anorexia nervosa), cachexia (exp. bulimia nervosa or anorexia nervosa), cachexia (exp. bulimia nervosa or anorexia nervosa), cachexia (exp. bulimia nervosa or anorexia nervosa), cachexia (exp. bulimia nervosa or anorexia nervosa), cachexia (exp. bulimia nervosa or anorexia nervosa), cachexia (exp. bulimia nervosa or anorexia nervosa), or disorders related to Ros production and others in cells, cell mitochondrial activity and so contributes to membrane stability and confort the function of organelles (preferably mitochondria). The present sequence represents a PCR primer for mouse Unc-51-like kinase I (ULK-1), which is used in an example from the present invention

Sequence 19 BP; 3 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

DB 1; Length 19;

1.6%; Score 13.2;

ö Agonist; immunoglobulin; Ig; variable domain; heavy chain; light chain; complementarity determining region; CDR; antigenic; thrombopoietin; TPO; thrombopoietin; receptor; MPL; cytotoxic T-lymphocyte; CTL; epitope; proliferation; growth; differentiation; harmaceutical; vaccine; proliferation; growth; differentiation; haematopoietic cell; antibody; platelet progenitor cell; immune disorder; thrombocytopenia; primer; disseminated intravascular coagulation; stem cell; transplantation; gene therapy; diagnostic; haemostatic; immunomodulator; anticoagulant; consensus variable heavy chain domain; CONVH; PCR; ss; PCR knitting. Gaps VHP3, used to construct an MPL binding sequence of TPO. . 0 Indels Pred. No. 5.2e+02; Ogert RA; . 0 222 1 reservededederere 18 BP. 02-APR-2002; 2002WO-US010301. 02-APR-2001; 2001US-0281183P. 83.3%; 205 TGGGTTCCCAGCCCTCTC ABS56367 standard; DNA; 19 (first entry) 15; Conservative (PURD) PURDUE PHARMA LP. Burch RM, WPI; 2003-040615/03. Best Local Similarity WO200278612-A2. 20-JAN-2003 PCR primer, 10-OCT-2002 Soltis DA, ABS56367 Matches ABS56367 g 8

The invention discloses a variant of an immunoglobulin (IG) variable heavy or light chain domain that comprises at least one complementarity determining region (CDR) and framework regions flanking the CDR. The CDR also has added or substituted to it, at least one binding sequence which is heterologous to the CDR and is an antigenic, agonistic sequence which is heterologous to the CDR and is an antigenic, agonistic sequence from a thromopoletin (TPO) receptor (MPL) binding sequence. The antigenic sequence can be a binding sequence heterologous to the CDR, a cytotoxic respense or a combination of each. The variant or thromopoletin synthebody, pharmaceutical and vaccine compositions are useful for synthebody, pharmaceutical and vaccine compositions are useful for stimulating proliferation, growth or differentiation of haematopoletic cells, particularly platelet progenitor cells. The variants are also useful for treating or preventing hemmatopoletic or immune disorders constituting from chemocherapy, radiation therapy, or bone marrow transfusions (e.g. thrombocytopenia or disseminated intravascular committed and vacuured committed and variance of the mobilisation and ex vivo expansion of stem cells and committed and vacuured committed and vacuured committed and vacuured committed and vacuured committed and vacuured committed and vacuured committed and vacuured committed and vacuured committed and vacuured committed and vacuured committed and vacuured and vacuured committed and vacuured committed and vacuured committed and vacuured and vacuured and vacuured committed and vacuured committed and vacuured and v committed precursor cells for autologous and allogeneic transplantation as well as for the expansion of stem cells for gene therapy. They are also useful as diagnostic or analytical reagents for studying the function of thrombopoietin and its receptor in vivo or in vitro. The sequence presented is the PCR primer, VHP3, which was used to construct variable heavy chain region gene containing the MPL binding sequence of 0

Gaps ..

Indels

SXS

RESULT 69 ADD20699/

8 g

```
rainbow trout, halibut, seabass and Atlantic cod. (II) is useful for detecting nucleic acid molecule comprising SNP in a sample, which involves contacting the sample containing nucleic acids with one or more (II) derived from nucleotide sequence of S. salar SNPs and O. niloticus SNPs, and identifying nucleic acid that hybridises to (II). (II) is useful for detecting nucleic acid molecule comprising a polymorphic sequence in a sample, comprising contacting the sample containing nucleic acids with one or more (II) which is derived from O. niloticus microsatellite, O. niloticus SNPs, Atlantic halibut SNPs, cod polymorphic sites or seabass polymorphic sites, and identifying a nucleic acid that hybridises to (II). (III) is useful for detecting nucleic acid molecule comprising a microsatellite sequence in sample. The present sequence is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                       Score 13.2; DB 1; Length 19; Pred. No. 5.2e+02;
                                                                                                                                                                                                                                                                                                                           Sequence 19 BP; 8 A; 6 C; 3 G; 2 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      501 GGAGATTTGGCCAGTTTG 518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-FEB-2002; 2002US-0358580P.
11-MAR-2002; 2002US-0363124P.
06-JUN-2002; 2002US-0386782P.
59-AUG-2002; 2002US-0408378P.
05-SEP-2002; 2002US-0408378P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-SEP-2002; 2002US-0408378P.
09-SEP-2002; 2002US-0409293P.
20-SEP-2002; 2002US-0412304P.
15-JAN-2003; 2003US-0440129P.
                                                                                                                                                                                                                                                                                                                                                                         1.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-FEB-2003; 2003WO-US004317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19 GGTCATTTGGTCAGTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mcswiggen J, Beigelman L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (RIBO-) RIBOZYME PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADE27470 standard; RNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                        15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2003-721687/68.
                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO2003070885-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-AUG-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADE27470;
                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADE27470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8x888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention describes an isolated nucleic acid (I) comprising a single nucleotide polymorphism (SNP) chosen from: (i) a nucleic acid of Salmo salar SNPs, Oreconfromis niloticus SNPs or Atlantic halibut SNPs; and (ii) a nucleic acid having nucleotide sequence that hybridises to and (ii) a nucleic acid having nucleotide sequence that hybridises to and searched; (I) an isolated oligonucleotide (II) comprising at least of a nucleotide sequence of S. salar SNPs, O. niloticus SNPs, O. niloticus microsatellites, Atlantic halibut SNPs, Con polymorphic sites and seabases polymorphic sites, or their complement; (2) a primer pair (III) suitable for use in PCR, comprising two (II) capable of amplifying a nucleotide sequence chosen from S. salar SNPs and, O. or iloticus SNPs, O. niloticus microsatellites, Atlantic halibut SNPs, con comprising a collection of acadidate parent genotype database comprising a collection of candidate parent genotype database comprising a collection of candidate parent genotype and capabase, where a match between the sample genotype to the parentage genotype database, where a match between the sample genotype and one of the candidate parent genotype identifies to the sample such as family salmonidae, S. salar, Tilapia, O. niloticus, a fish sample such as family salmonidae, S. salar, Tilapia, O. niloticus,
                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel isolated nucleic acid molecule comprising single nucleotide polymorphism associated with fish, useful for forming PCR primers which are used for detecting single nucleotide polymorphisms in fish nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     single nucleotide polymorphism; SNP; fish; Salmo salar; Orechromis niloticus; Atlantic halibut; microsatellite; cod; polymorphic site; seabass; salmonidae; Tilapia; rainbow trout; halibut; detection; primer; ss.
                                                                                                                                                 Gaps
                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oreochromis niloticus microsatellite primer SEQ ID NO:1334
                                                                                                   Score 13.2; DB 1; Length 19;
Pred. No. 5.2e+02;
0; Mismatches 3; Indels
                                                       Sequence 19 BP; 2 A; 5 C; 6 G; 6 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 18; SEQ ID NO 1334; 233pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ū
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lingaas
              TPO using the PCR knitting technique
                                                                                                                                                 . 0
                                                                                                                                                                                               446 GCCAGATGCCTTCCAGGA 463
                                                                                                                                                                                                                                           19 GCCAGAAGCCTTGCAAGA 2
                                                                                                                                                                                                                                                                                                                                                           BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lie O, Slettan A, Hoyum M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-JAN-2003; 2003WO-IB000112.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JAN-2002; 2002US-0349950P.
16-AUG-2002; 2002US-0404200P.
                                                                                                        1.6%;
                                                                                                                                                                                                                                                                                                                                                           ADD20699 standard; DNA; 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-JAN-2004 (first entry)
                                                                                                        Query Match 1.6
Best Local Similarity 83.3
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oreochromis niloticus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GENO-) GENOMAR ASA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-627388/59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003060160-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                         ADD20699;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   acids.
```

```
The present invention describes a short interfering nucleic acid (siNA) that downregulates expression of the SCD (stearoyl-COA desaturase) gene by RNA interference. Also described: (1) modulating expression of SCD
                                                                                 short interfering nucleic acid; siNA; downregulation; inhibition; SCD; stearcyl-CcA desaturase; RNA interference; anorectic; antidiabetic; antiarteriosclerotic; cytostatic; virucide; obesity; diabetes; atherosclerosis; cancer; viral infection; drug screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New short interfering nucleic acid, useful e.g. for treatment diagnosis of obesity or diabetes, downregulates expression of stearoyl-CoA desaturase gene.
Stearoyl-CoA desaturase siNA oligonucleotide SEQ ID NO:414.
                                                                                                                                                                                                                                                                                       genetic engineering; pharmacogenomic; gene mapping; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 3; SEQ ID NO 414; 139pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Thompson J;
```

```
genes in cells, tissue explants or organisms by introduction of siNA, (2) kits for in vitro or in vivo delivery of siNA, (3) conjugates and/or complexes of siNA, and (4) vectors that express siNA. SCD inhibiting siNAs have anorectic, antidiabetic, antiatreriosclerotic, cytostatic and virucide activities. The siNAs can be used to modulate expression of SCD genes, in cells, tissue explants or organisms, e.g. for treating obesity, diabets (types I and II); atherosclerosis; cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD siNA, which is used in the exemplification of the present invention.
```

Sequence 19 BP; 6 A; 5 C; 3 G; 0 T; 5 U; 0 Other;

```
/ Match 1.6%; Score 13.2; DB 1; Length 19; Local Similarity 66.7%; Pred. No. 5.2e+02; les 12; Conservative 3; Mismatches 3; Indels
                                                                        715 CCAAATTTCAGGAGCTGC 732
                                                                                                             18
                                                                                              1 CAAAAUUCCAUGAGCUGC
     Query Match
                   Best Loca
Matches
                                                                                                         임
                                                                          ઠે
```

.. 0

Gaps ö

> ADE27180 standard; RNA; 19 BP (first entry) 29-JAN-2004 ADE27180; RESULT 692 ADE27180/c

Stearoyl-CoA desaturase siNA oligonucleotide SEQ ID NO:124.

short interfering nucleic acid; siNA; downregulation; inhibition; SCD; stearcyl-CoA desaturase; RNA interference; anorectic; antidiabetic; antiarteriosclerotic; cytostatic; virucide; obesity; diabetes; attherosclerosis; cancer; viral infection; drug screening; genetic engineering; pharmacogenomic; gene mapping; ss.

Synthetic

WO2003070885-A2.

28-AUG-2003

13-FEB-2003; 2003WO-US004317. 20-FEB-2002;

2002US-0363124P. 2002US-0386782P. 2002US-0406784P. 2002US-0408378P. 06-JUN-2002; 29-AUG-2002; 05-SEP-2002; 11-MAR-2002;

(RIBO-) RIBOZYME PHARM INC

2002US-0412304P. 2003US-0440129P.

20-SEP-2002; 15-JAN-2003;

09-SEP-2002;

Thompson J; Mcswiggen J, Beigelman L,

WPI; 2003-721687/68.

New short interfering nucleic acid, useful e.g. for treatment diagnosis of obesity or diabetes, downregulates expression of stearoyl-CoA desaturase gene.

Example 3; SEQ ID NO 124; 139pp; English.

The present invention describes a short interfering nucleic acid (siNA) that downregulares expression of the SCD (stearoyl-CoA desturnase) gene by RNA interference. Also described: (1) modulating expression of SCD genes in cells, tissue explants or organisms by introduction of siNA; (2)

The present invention describes a short interfering nucleic acid (siNA) that downregulates expression of a mitogen-activated protein kinase (MAPK) genes by RNA interference. Also described: (1) a method for

Example 3; SEQ ID NO 368; 164pp; English.

protein kinase genes.

New short interfering nucleic acid, useful e.g. for treatment and diagnosis of cancer, downregulates expression of mitogen-activated

Chowrira B;

Haeberli P,

Mcswiggen J, Beigelman L, Usman N,

WPI; 2003-689980/65.

(SIRN-) SIRNA THERAPEUTICS INC

2003US-0440129P

15-JAN-2003;

ö kits for in vitro or in vivo delivery of siNA; (3) conjugates and/or complexes of siNA; and (4) vectors that express siNA. SCD inhibiting siNAs have anorectic, antidiabetic, antidiateriosclerotic, cytostatic and virucide activities. The siNAs can be used to modulate expression of SCD genes, in cells, tissue explants or organisms, e.g. for treating obseity; diabetes (types I and II); atherosclerosis; cancer and viral infections. They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents an SCD siNA, which is short interfering nucleic acid; siNA; downregulation; inhibition; mitogen-activated protein kinase; MAP kinase; MAPK; RNA interference; cytostatic; ancrectic; antidiabetic; antiinflammatory; antiasthmatic; immunosuppressive; antibacterial; antitheumatic; antiarthritic; antipsoriatic; gastroincestinal; obesity; diabetes; tumour; inflammatory disease; asthma; septic shock; rheumatorid arthritis; psoriasis; inflammatory bowel disease; drug screening; genetic engineering; pharmacogenomic; gene mapping; ss. Gaps Mitogen activated protein kinase siNA oligonucleotide SEQ ID NO:368 .. 0 19; 3; Indels Score 13.2; DB 1; Length Pred. No. 5.2e+02; used in the exemplification of the present invention Sequence 19 BP; 5 A; 3 C; 5 G; 0 T; 6 U; 0 Other; 0; Mismatches 715 CCAAATTTCAGGAGCTGC 732 19 cadadrirccardadcide 2 ADE29746 standard; RNA; 19 BP. Query Match 1.6%; Best Local Similarity 83.3%; Matches 15; Conservative 2002US-0363124P. 2002US-0386782P. 2002US-0406784P. 28-JAN-2003; 2003WO-US002510 2002US-0358580P. 2002US-0409293P (first entry) WO2003072590-A1. 20-FEB-2002; 11-MAR-2002; 06-JUN-2002; 29-AUG-2002; 05-SEP-2002; 09-SEP-2002; 29-JAN-2004 04-SEP-2003 Synthetic. ADE29746; RESULT: 693 88888888888888 ð g

```
Example 3; SEQ ID NO 473; 164pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV52668;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bell GI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 695
            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
modulating expression of MAPK genes in cells, tissue explants or organisms by introduction of siNA; (2) kits for in vitro or in vivo delivery of siNA; (3) conjugates and/or complexes of siNA; and (4) vectors that express siNA and cells containing these vectors. MAPK siNAs have cytostatic, anorectic, antidiabetic, antinflammatory, antiasthmatic, immunosuppressive, antibacterial, antirheumatic, antipsoriatic and gastrointestinal activities. The MAPK siNAs can be used to modulate the expression of MAPK genes, in cells, tissue explants or organisms, e.g. for treating obesity, diabetes types I and II, a wide range of tumouurs, and inflammatory diseases (asthma, septic shock, rheumatoid arthritis, psoriasis and inflammatory bowel disease). They can also be used for drug screening; diagnosis; target identification and validation; genetic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide polymorphisms). The present sequence represents a MAPK siNA which is used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            short interfering nucleic acid; siNA; downregulation; inhibition; mitogen-activated protein kinase; MAP kinase; MAPK; RNA interference; cytostatic; anotectic, antidiabetic; antidiflammatory; antiasthmatic; immunosuppressive; antibacterial; antirheumatic; antiarthritic; antipsoriatic; gastrointestinal; obesity; diabetes; tumour; inflammatory disease; asthma; septic shock; rheumatoid arthritis; perstansis; inflammatory bowel disease; drug screening; genetic engineering; pharmacogenomic; gene mapping; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mitogen activated protein kinase siNA oligonucleotide SEQ ID NO:473.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New short interfering nucleic acid, useful e.g. for treatment and diagnosis of cancer, downregulates expression of mitogen-activated protein kinase genes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mcswiggen J, Beigelman L, Usman N, Haeberli P, Chowrira B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 1.6%; Score 13.2; DB 1; Length 19; Best Local Similarity 55.6%; Pred. No. 5.2e+02; Matches 10; Conservative 5; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 19 BP; 2 A; 4 C; 7 G; 0 T; 6 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      135 TCTGCTTTGGGGGCTGCA 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-FEB-2002; 2002US-0358580P.
11-MAR-2002; 2002US-0363124P.
06-JUN-2002; 2002US-0386782P.
29-AUG-2002; 2002US-0406784P.
05-SEB-2002; 2002US-0408378P.
05-SEP-2002; 2002US-0409293P.
15-JAN-2003; 2003US-0440129P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 ucugeucugugggcugcA 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (SIRN-) SIRNA THERAPEUTICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADE29851 standard; RNA; 19 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-JAN-2003; 2003WO-US002510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-689980/65.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2003072590-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-SEP-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADE29851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADE29851/

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

XX ADE2

X
            g
```

```
The present invention describes a short interfering nucleic acid (siNA) that downregulates expression of a mitogen-activated protein kinase (mAPK) genes by RNA interference. Also described: (1) a method for modulating expression of MAPK genes in cells, tissue explants or corganisms by introduction of SiNA; (2) kits for in vitro or in vivo delivery of siNA; (3) conjugates and/or complexes of SiNA; and (4) corgustes that express siNA and cells containing these vectors. MAPK siNAs vectors that express iNA and cells containing these vectors. MAPK siNAs containthritic, antiporiatic and gastrointestinal activities. The MAPK antiasthmatic, antiporiatic and gastrointestinal activities. The MAPK siNAs can be used to modulate the expression of MAPK genes, in cells, tissue explants or organisms, e.g. for treating obesity; diabetes types I complication and validation; psoriasis and inflammatory bowel complexes. They can also be used for drug screening; diagnosis; target disease). They can also be used for drug screening; diagnosis; target coloning fication and validation; genetic engineering; pharmacogenomics; studying gene function and gene mapping (e.g. of single-nucleotide colonymorphisms). The present sequence represents a MAPK siNA which is used the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Isolated nucleic acid encoding hepatocyte nuclear factor 1-alpha and 1-beta - useful for detecting susceptibility for non-insulin dependent diabetes, especially maturity-onset diabetes of the young.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hepatocyte nuclear factor 4 alpha; HNF-4 alpha; MODY1; human; transcription factor; maturity onset diabetes of the young; TCF14; diabetes; NIDDM; diagnosis; therapy; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hepatocyte nuclear factor 4 alpha gene exon 1b reverse PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kaisaki PJ, Furuta H, Menzel S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 1.6%; Score 13.2; DB 1; Length 19; Best Local Similarity 83.3%; Pred. No. 5.2e+02; Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 19 BP; 6 A; 7 C; 4 G; 0 T; 2 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 3; Page 112; 363pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     135 TCTGCTTTGGGGGTGCA 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oda N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96US-0025719P.
96US-0028056P.
96US-0029679P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAV52668 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97WO-US016037.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rerecrereredecreek
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Yamagata K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ARCH-) ARCH DEV CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1998-271667/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9811254-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-MAR-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Horikawa Y;
```

AAQ57830 standard; DNA; 20 BP.

(first entry) (revised)

25-MAR-2003

AAQ57830;

21-AUG-1994

CTGTGACTTCTGAAGCTG

20

```
ö
This is a reverse PCR primer designed for use with a forward primer (see AAV52667) in the PCR amplification of exon 1b and the flanking introns (see AAV52655) of the human hepatocyte nuclear factor-4 alpha (HNF-4 alpha) gene (see AAV52687). Mutations of the HNF-4 alpha gene have been identified by amplifying (see AAV5265-665) and sequencing the appropriate exon. The invention concerns the identification of genes responsible for non-insulin dependent diabetes mellitus (NIDDM) for use in diagnostics and therapeutics. It demonstrates that the MODY1 (maturity-onset diabetes of the young) locus is the HNF-4 alpha gene. Analysis of mutations in the HNF-4 alpha gene can be diagnostic for diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Oligo-nucleotide primers for polymerase chain reaction amplification -
which detect DNA polymorphisms and are useful for prenatal and paternity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This is a PCR primer which is used (with AAQ32806) to characterise a unique microsatellite repeat polymorphic DNA marker which has a high polymorphism information content. The marker is useful for human individualisation, in forensic screening, in paternity and prenatal screening as well as in genetic mapping. (Updated on 25-MAR-2003 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIC; high polymorphism information content; forensic; screening; polymerase chain reaction; genetic mapping; paternity; prenatal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . Match 1.6%; Score 13.2; DB 1; Length 20; Local Similarity 83.3%; Pred. No. 5.6e+02; les 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ch 1.6%; Score 13.2; DB 1; Length 20; l Similarity 83.3%; Pred. No. 5.6e+02; 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Microsatellite repeat polymorphic DNA marker PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 4 A; 7 C; 5 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 7 A; 6 C; 4 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (USSH ) US DEPT HEALTH & HUMAN SERVICE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 27; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 144 GGGGCTGCAGCTCCATAC 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 GGAGCTGCAGCCTCATAC 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Polymeropoulos MH, Merrill CR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          screening, and genetic mapping.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92WO-US004195.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 91US-00799828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91US-00707501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAQ32807 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1992-433606/52.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 correct PN field.)
```

27-MAY-1992;

29-MAY-1991; 27-NOV-1991;

WO9221693-A1

Synthetic.

25-MAR-2003 05-MAY-1993

AAQ32807;

RESULT 696

AAQ32807/

Query Match

88496666666666

Matches

ઠે

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            assay for measuring the subtle differences in genetic material regarding an added or omitted set of dinucleotide or tetranucleotide repeat polymorphisms. The method comprises obtaining polymucleotide regents comprising the repeat polymorphisms in an amount effective for testing and amplifying the segments by a PCR procedure using a pair of oligonucleotide primers capable of amplifying the polymorphism containing sequence. The amplified sequences are resolved using PAGE and the resolved sequences are compared by autoradiography to observe the differences in migration pattern due to length variation. The polymorphic provide a fast and accurate test for measuring the subtle differences in individuals in eg. forensic screening, paternity and differences in individuals in eg. forensic screening, paternity and differences in screening and genetic mapping. The polymorphic microsatellite repeats based on previoually sequenced human genes. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                    Primer, assay, subtle difference, dinucleotide, tetranucleotide, repeat, polymorphism, PCR, polymerase chain reaction, amplify, PAGE, autoradiography, migration pattern, length variation, genetic mapping, forensic screening, paternity, prenatal, screening, microsatellite,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New polynucleotide sequences - derived from polymorphic micro:satellite repeats, used for characterising human individuals for forensic, paternity and prenatal screening and genetic mapping.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The sequences given in AAQ57782-866 are primers which were used in an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seguence 20 BP; 7 A; 6 C; 4 G; 3 T; 0 U; 0 Other;
                                                                                                                                 Primer pair 9A ANKYRIN detection primer #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 38; 72pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        820 CTGTGGGTGCTGAAGCTG 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Merril CR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             m
                                                                                                                                                                                                                                                                                                                                                                                                                                            92US-00952723.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 83.3%;
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20 CTGTGACTTCTGAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1994-065727/08.
                                                                                                                                                                                                                                                                                                                            WO9403640-A1.
                                                                                                                                                                                                                                                                                                                                                                                                     30-JUL-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                            31-JUL-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-SEP-1992;
                                                                                                                                                                                                                                                                                                                                                               17-FEB-1994
                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                   human; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
à
```

; 0

Gaps

.; 0

Local Similarity

Best Loca Matches

```
Primers T41001-T41382 are derived from novel human gene signature (GS) sequences which did not match with sequences deposited in Genbank release 76. The GS sequences (T19001-T56837) were obtained from 3 -directed cDNA libraries prepared from various human tissues; synthesis of cDNA was initiated from the 3'-end of mRNA by using poly(T) as the sole primer. Each library is constructed so as to reflect accurately the relative abundance of different mRNAs in the particular tissue from which it was determined (esp. using primers and probes derived from the GS sequences) as a means of diagnosing abnormal cell function or for recognising different cell types. The primers 41007-8 amplify clone pm.172 which comprises the GS HUMGS001087 (T20087), located on chromosome 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hepatitis C virus; HCV; non-A non-B; HC-G9; treatment; PCR sense primer; nt7792-7811; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Single-stranded DNA for identifying gene signatures - isolated from 3'-directed human cDNA library that reflects relative abundance of corresp.mRNA in specific human tissues.
                                                                                                                    Gene signature; messenger RNA; mRNA; relative abundance; frequency; human; cloning; mapping; non-biased library; diagnosis; detection; cell typing; abnormal cell function; primer; PCR; amplification; polymerase chain reaction; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  y Match 1.6%; Score 13.2; DB 1; Length 20; Local Similarity 83.3%; Pred. No. 5.6e+02; nes 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hepatitis C virus gene HC-G9 PCR sense primer nt7792-7811.
                                                                                          Human gene signature HUMGS01087-derived anti-sense primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 5 A; 9 C; 1 G; 5 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 7; Fig 6; 2245pp; Japanese.
                                                                                                                                                                                                                                                                                                             94WO-JP001916.
                                                                                                                                                                                                                                                                                                                                           93JP-00355504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         822 GTGGGTGCTGAAGCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAQ91517 standard; cDNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                            Okubo K;
                                                                                                                                                                                                                                                                                                                                                                          (MATS/) MATSUBARA K. (OKUB/) OKUBO K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1995-206931/27.
                                                                                                                                                                                                                                                                                                                                                                                                                            Matsubara K,
                                                                                                                                                                                                                                                                                                             11-NOV-1994;
                                                                                                                                                                                                                                                                                                                                            12-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-SEP-1995
                                                                                                                                                                                                                                           WO9514772-A1
                                                              25-NOV-1996
                                                                                                                                                                                                                                                                            01-JUN-1995
                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAQ91517;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAQ9151
```

```
Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Use of interleukin-12 to treat papilloma virus-associated lesions - esp. as a vaccine adjuvant with papilloma virus antigen for immuno:therapy of warts or tumours.
                                                                                                                                                                                                                                                Cytokine; expression profile; genital wart; interleukin 12; IL-12; tumour regression; adjuvant; polymerase chain reaction; PCR; condyloma acuminata; human papilloma virus; HPV-6; HPV-11; HPV16; HPV18; anogenital; cutaneous; laryngeal; oesophageal; cancer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RNA was extracted from genital lesions, reverse transcribed to produce
                           Gaps
                           0
Query Match
1.6%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYCA-) UNIV CAMBRIDGE TECH SERVICES LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 14; 32pp; English.
                                                     475
                                                                               19
                                                                                                                                              BP
                                                                                                                                                                                                                                                                                                                                                                                                                      95GB-00005784.
                                                                                                                                                                                                                                                                                                                                                                                               96WO-GB000686.
                                                                          CCAGGACGTGCTCAAGGA
                                                      458 CCAGGAAGAGCTCCAGGA
                                                                                                                                              AAT38998 standard; DNA; 20
                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scarpini
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1996-442947/44.
                                                                                                                                                                                                                          CD4 5' PCR primer.
                                                                                                                                                                                                                                                                                                                                                                                               22-MAR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                       22-MAR-1995;
                                                                                                                                                                                                29-MAY-1997
                                                                                                                                                                                                                                                                                                                                            WO9629091-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Stanley MA,
                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                        AAT38998;
                                                                                                                      RESULT 700
                                                                                                                                   AAT38998
                                                                                                                                                            ð
                                                                              g
```

.. 0

Gaps

. 0

839

A hepatitis C virus gene and oligo-nucleotide(s) - used for the treatment

93JP-00147133.

13-MAY-1993;

Hepatitis C virus.

AAT41008 standard; DNA; 20

JP06319563-A.

22-NOV-1994

(IMMO) IMMUNO JAPAN KK

WPI; 1995-040318/06.

Example 2; Page 38; 41pp; Japanese.

of hepatitis C.

AAQ91517 and AAQ91518 are a pair of primers for the PCR amplification of AAQ79140 the hepatitis C virus (HCV) gene HC-G9 cDNA, it encodes the protein described in AAR67588. Both the cDNA and protein can be used in the treatment of HCV infection

Sequence 20 BP; 6 A; 5 C; 7 G; 2 T; 0 U; 0 Other;

ઠે

```
8888888
                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
cDNA and then the cDNA was used as the template for PCR amplification of various cytokines using the primers in AAT38964 AAT39005. To confirm the identity of amplified cDNA, digoxigenin- labelled probes specific for each cytokine (see AAT39006-13021) were hybridised with Southern blots of amplified sequences. The expression profile for regressing and non-regressing warts was established and compared to cytokine expression patterns in normal cervical tissue. Results showed that interleukin 12 is barely expressed (if at all) in non-regressing warts, but is expressed in regressing warts. This suggests a central role for IL-12 in wart regressing univant) for treating papilloma virus-associated lesions such as condyloma acuminata (anogenital warts) caused by human papilloms virus type 6 (HPV-6) and/or HPV-11 and more generally for treatment of tumours associated with HPV-11 and more generally for treatment of tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is a PCR primer (nt 717-738) for the human steroidogenesis acute regulatory protein (hStAR) orDA. The hStAR gene can be analysed for mutations to detect (e.g. prenatally) genetic defects associated with congenital lipoid adrenal hyperplasia (CAH), or its transmission to children. CAH can be treated by protein or gene replacement therapy, which can also be used to prevent or treat hypercholesterolaemia. A human adrenal cortex oDNA library was screened
                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Isolated human steroidogenesis acute regulatory protein gene - used detection of mutation(s) of this gene that cause congenital lipoid adrenal hyperplasia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human, steroidogenesis, acute regulatory protein, hStAR, analysis, mutation, detection; prenatal, genetic defect; congenital, protein, lippid adrenal hyperplasia; treatment, prevention, gene; replacement therapy, hypercholesterolaemia; primer; PCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Steroidogenesis acute regulatory protein antisense PCR primer 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                       1.6%; Score 13.2; DB 1; Length 20; 33.3%; Pred. No. 5.6e+02; ve 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 5 A; 4 C; 7 G; 4 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                      cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 7; Page 4; 89pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         860 TGGTGATGAGCCCAACTC 877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 TGGTGATGAGAGCCACTC 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strauss JF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                polymerase chain reaction; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   96WO-US003896.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95US-00410540.
                                                                                                                                                                                                                                                                                                                                                                                                           ilarity 83.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAT39478 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (REGC ) UNIV CALIFORNIA. (UYPE-) UNIV PENNSYLVANIA.
                                                                                                                                                                                                                                                                                                      laryngeal and oesophageal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1996-443130/44.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Miller WL, Lin D,
                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
es 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9629338-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-MAR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT39478;
                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                        Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 701
```

```
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
with a mouse StAR probe to isolate a 1.6 kb insert, including an ORF for a 2B5 realatue protein. When it was Gloned into pSPORT and expressed in COS-1 cells cotransfected with pP9450 and pADX, it increased the level of pregnenolone synthesis from cholesterol or 20-alpha-hydroxycholesterol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence represents a specifically claimed oligonucleotide PCR primer. The oligonucleotide can be used for polymerase chain reaction (PCR) amplification of DNA, specifically regions of specific genes that are conserved among mammalian species, i.e. pairs of oligonucleotides from the present specification represent universal mammalian sequence-tagged site (UM-STS) primers. The primers are used to develop genomic maps, to isolate clones from libraries, to make cross-species comparisons and to develop additional genetic markers. UM-STS allow genomic comparisons to be made between more species
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New oligonucleotide primers amplifying gene regions conserved among mammals - useful for developing genomic maps, isolating clones and making cross-species comparisons.
                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCR primer; polymerase chain reaction; amplification; UM-STS; universal mammalian sequence tagged site; genomic map; clone; ss.
                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
0
                                                                                                                                                                                                                           Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1.6%; Score 13.2; DB 1; Length 20; 3.3%; Pred. No. 5.6e+02; ve 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cytochrome P-450 PCR primer for universal mammalian STS's.
                                                                                                                                                                                                                                                                                    3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 2 A; 4 C; 7 G; 7 T; 0 U; 0 Other;
                                                                                                                                                            Sequence 20 BP; 4 A; 7 C; 6 G; 3 T; 0 U; 0 Other,
                                                                                                                                                                                                                     Query Match
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yuzbasiyan-Gurkan V;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      83.3%; Pred. w.tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 11; 26pp; English.
                                                                                                                                                                                                                                                                                                                                                   629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          871 CCAACTCCATTGAGGTCC 888
                                                                                                                                                                                                                                                                                                                                                                                                               Grédechrechaceage 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV01261 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97WO-US002403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96US-0012061P
                                                                                                                                                                                                                                                                                                                                                   612 GIGGCCATCICAACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (UNMI ) UNIV MICHIGAN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20 CCAGCTCCAAAGAGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-MAR-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 83.3
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Venta PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1997-435083/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9731012-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-AUG-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Brewer GJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAV01261;
```

```
Exon 23; PCR primer; single stranded conformational polymorphism; SSCP; analysis; endothelial nitrogen monoxide synthase; eNOS; genetic screening; coronary arterial spasm; angina pectoris; ss.
                                               Primer for exon 23 of endothelial nitrogen monoxide synthase gene.
                                                                                                                                                                                                                                                                                  Example 1; Page 14; 47pp; Japanese.
AAT93934 standard; DNA; 20 BP.
                                                                                                                                                                        95JP-00319504.
96JP-00168761.
                                                                                                                                                         96WO-JP003324
                               03-FEB-1998 (first entry)
                                                                                                                                                                                                 CHIO ) SHIONOGI & CO LTD
                                                                                                                                                                                                                Yasue H, Yoshimura M;
                                                                                                                                                                                                                                 WPI; 1997-289303/26.
                                                                                                                                                                                                                                                                                                                                                                           easy detection
                                                                                                         Homo sapiens.
                                                                                                                        WO9718327-A1
                                                                                                                                                        13-NOV-1996;
                                                                                                                                                                         13-NOV-1995;
                                                                                                                                                                                 28-JUN-1996;
                                                                                                                                         22-MAY-1997
                                                                                                Synthetic
               AAT93934;
```

. 0 Sequence 20 BP; 3 A; 5 C; 5 G; 7 T; 0 U; 0 Other;

Gaps ö 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ative 0; Mismatches 3; Indels

794 ACTGCAGGACTGACTGAA 811

AAT73404; RESULT 704 AAT73404 XXXXXXXXXXXXXXXXX

(first entry) 14-JAN-1998

S182 gene, Alzheimer's disease, polymorphism, mismatch, mutation, intronic sequence, polymerase chain reaction, primer; ss.

2 TGGTAATGTGGTTGGTGA 19 BP, RESULT 705 AAT75570/c ID AAT75570 standard; DNA; 20 (first entry) 27-FEB-1998 AAT75570; g

ö

.; 0

1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels

Query Match 1.6 Best Local Similarity 83.3 Matches 15; Conservative

815 TGGTACTGTGGGTGCTGA 832

8

Sequence 20 BP; 3 A; 0 C; 9 G; B T; 0 U; 0 Other;

A method has been developed for the detection of polymorphism (mutations) in the S182 gene. The mutations are detected using selected mismatch polymerase chain reaction (PCR) primers derived from intronic sequences of the gene. The present sequence represents a specifically claimed PCR primer. Mutations in the S182 gene indicate that a subject is susceptible to late onset Alzheimer's disease. The method allows rapid analysis of many samples by PCR, restriction enzyme disestion and gel electrophoresis. Use of intronic sequences allows mutations to be detected in splice donor and acceptor sites (this would be almost impossible without intronic primers)

Diagnosing Alzheimer's disease by detecting polymorphism in the S182 gene - using mismatch polymerase chain reaction primers derived from intronic sequences.

Claim 3; Page 8; 30pp; English.

(UNIW) UNIV WASHINGTON SCHOOL MED. (UYSF-) UNIV SOUTH FLORIDA.

Goate AM;

Hardy JA,

WPI; 1997-259039/23.

96WO-US017132

25-OCT-1996;

01-MAY-1997.

Synthetic.

Primer ANK1.PCR1.2 for Ank DNA microsatellite marker.

PCR primer; amplification; Ank; DNA microsatellite marker; polymorphic DNA marker; detection; loss of heterozygosity; chromosome 8p12-2; human; prostate; epithelial cell line; epithelial cell oncogenesis; diagnosis; therapy; treatment; prevention; cancer; vaccine; antibody; ss.

Homo sapiens Synthetic.

WO9728255-A1.

07-AUG-1997.

97WO-US001430. 30-JAN-1997; 02-FEB-1996;

(USSH) US DEPT HEALTH & HUMAN SERVICES.

3,244

FIT 101 30 TO:32:03 Z00#

RESULT 70 AAT93934/

Genetic screening for diseases associated with coronary arterial spasm by assessment of the occurrence of specific mutation(s) of the endothelial nitrogen monoxide synthase gene.

The present sequence is an exon 23 primer for the polymerase chain reaction-single stranded conformational polymorphism (PCR-SSCP) analysis of the endothelial nitrogen monoxide synthase (eMOS) gene. The PCR-SSCP analysis was used in an example of genetic screening method for diseases associated with coronary arterial spasm, which comprises determining if or more specific nucleotides in the eNOS gene have been substituted, specifically gasqu; c7747, T(-786)C, A(-922)G and T(-1468)A. Screening for diseases associated with coronary spasm, e.g angina pectoris, cannot be easily carried out by existing methods, this method allows rapid and

Query Match Best Local Similarity 83.3% Matches 15, Conservative

||| |||||||| |||||| |||||| 18 ACTAAAGGACTGCCTGAA 1

AAT73404 standard; DNA; 20 BP

S182 gene mutation detection mismatched PCR primer.

þe

schu568-1.rng

```
Synthetic.
Pig endogenous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9721836-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-DEC-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-JUN-1997,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fishman JA;
                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT74866;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 707
                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAT74866
88888888
                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                       Immortalised, human, prostate epithelial cell line - useful as model in epithelial cell oncogenesis studies, particularly for developing products for diagnosis and therapy of prostate cancer.
                                                                                                                                                                                                                                                                          The present sequence is a primer for the PCR amplification of the Ank microsatellite marker, which is polymorphic DNA marker that can be studied for the detection of loss of heterozygosity on chromosome 8pl2-21. The primer was used in the development of a novel isolated, immortalised, malignant, human, adult prostate epithelial cell line, which can be used as a model in epithelial cell oncogenesis studies. The cells can be used in diagnosis and therapy, and to elicit an immune response to treat or prevent the recurrence of prostate cancer, i.e. a prostate cancer vaccine. They can also be used to produce antibodies for administration to prostate cancer patients, and to screen for potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human calpain protein and related DNA - useful for drug screening and treating cancer, stroke, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Calpain, human, leukocyte, calcium dependent cysteine protease, screening; activator; inhibitor; treatment; prevention; cancer; cerebral apoplexy; cerebral infarction; subarachnoid haemorrhage; Alzheimer's disease; myodystrophy; caracte; collagen disease; ischaemic heart disease; atherosclerosis; arthritis; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 7 A; 6 C; 4 G; 3 T; 0 U; 0 Other;
                      Vocke CD;
                      Bright RK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kawamoto T;
                                                                                                                                                                                                                              Example 2; Page 27; 64pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; Page 36; 43pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             820 CIGIGGGIGCIGAAGCIG 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Primer for human calpain cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97EP-00105508.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96JP-00083649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20 crereacricidadecre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (TAKE ) TAKEDA CHEM IND LID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV04423 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 83.3
es 15; Conservative
                   Topalian SL, Linehan W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shintani Y, Nishi K,
                                                                        WPI; 1997-402609/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1997-482674/45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cherapeutic agents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-APR-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EP799892-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV04423;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
```

Best Loca Matches

ò

RESULT 706 AAV04423/C

The present sequence is a primer for human calpain cDNA. Calpain is a

```
The PCR primer API1 is designed from one of the following sequences; the porcine retrovirus Tsukuba-1 cDNA, the genome of a defective porcine retrovirus found in PK-15 cells and a retrovirus from miniature swine.

The primer has also been used as a sequencing primer. Fragments generated from the amplification of such viral sequences as the GAG, POL and ENV viral is contrained to screen organs for porcine retroviruses or prior to xenotransplantation. Transplantation can increase the likelihood of retroviral activation if intact and infectious proviruses are present. The porcine retroviral sequence can be used to generate probes to determine the level (e.g. copy number) of intact (i.e. potentially replicating) porcine provirus sequences in a strain of xenograft cransplantation denors. It can be used to determine the histological localisation of activated retrovirus. Using Polymerase Chain Reaction DNA contraintation (PDO) on blood monomuclear cells, infectivity tirration and susceptibility testing can be performed. Ultimately animal donors without intact porcine retroviral sequences or with a lower copy number of viral
                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New nucleic acid from porcine retro:viruses - used for detecting viruses in transplant or other tissue and for assessing risk of transmitting
human leukocyte derived calcium dependent cysteine protease, which can used to screen for compounds that activate or inhibit its proteolytic activity. Calpain DNA can be used to treat or prevent cancer, cerebral apoplexy, cerebral infarction, subarachnoid haemorrhage, Alzheimer's disease, myodystrophy, cataracts, ischaemic heart disease, atherosis, arthritis or collagen disease
                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Retrovirus, porcine, GAG protein, POL protein, ENV protein, xenotransplantation, infectious, provirus, organ transplant, donor, activated virus, Tsukuba-1, PCR, primer, ss.
                                                                                                                                                                                                                                              ·,
                                                                                                                                                                                                  1.6%; Score 13.2; DB 1; Length 20; B3.3%; Pred. No. 5.6e+02;
                                                                                                                                                                                                                                              Indels
                                                                                                                                                     Sequence 20 BP; 1 A; 7 C; 3 G; 9 T; 0 U; 0 Other;
                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Porcine retrovirus PCR primer AP11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 10; Page 34; 128pp; English.
                                                                                                                                                                                                                                                                                      761 GATGGCAGAACTGGAGAA 778
                                                                                                                                                                                                                                                                                                                                                                                                                                                BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95US-00572645.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96WO-US019680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            infection to graft recipient.
                                                                                                                                                                                                                                                                                                                                18 GAAGGAAGAACTGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                              AAT74866 standard; cDNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GEHO ) GEN HOSPITAL CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            retrovirus
                                                                                                                                                                                                                  Local Similarity 83.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1997-332804/30.
```

ö

415

Page

.

```
results from a G to A change in codon 120 in exon 5 of the presentin (PS -1) gene. Mutations in the PS-1 gene on chromosome 14 have been shown to cause a significant proportion of early-onset, autosomal dominant transmembrane domain (TM2). This mutation is virtually impossible to transmembrane domain (TM2). This mutation is virtually impossible to transmembrane domain (TM2). This mutation is virtually impossible to transmembrane domain (TM2). This mutation is virtually impossible to transmembrane domain (TM2). This mutation is virtually impossible to transmembrane domain (TM2). This mutation is virtually impossible to transmembrane domain (TM2). This mutation is near the second putative intron-exon boundary in genomic clones. The primers are used in a new method for diagnosing the likelihood of developing a chronic neurological disorders comprises detecting the presence or absence of PS-1 isoforms or of DNA encoding PS-1 isoforms in the subject. The methods which block or alter synaptic transmission in head injuries. They can also be used for the prognosis and treatment of beta-amyloid related diseases such as early- and late-onset Alzheimer's disease, cortical Lewy body disease, parkinson's disease and patients with vascular and cerebrovascular disease which predispose to these diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Presenilin gene; PS-1 gene; early-onset Alzheimers disease; polymorphism; intron; splice site; diagnosis; beta-amyloid related disease; PS-1 isoforms; exon 5; TW2; PCR primer; ss.
elements could be selected. (Updated on 27-AUG-2003 to correct OS field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Detection of presenilin-1 isoforms - used for the prognosis of head-
injury subjects and the prognosis and treatment of beta-amyloid-related
diseases.
                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Presenilin (PS-1) gene PCR primer 2 to detect G to A mutation.
                                                                                                                                                Length 20;
                                                                                                                                            Query Match
1.6%; Score 13.2; DB 1; Length 2
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP; 3 A; 0 C; 9 G; 8 T; 0 U; 0 Other;
                                                                        Sequence 20 BP; 3 A; 9 C; 1 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UNIW ) UNIV WASHINGTON SCHOOL MED. (UYSF-) UNIV SOUTH FLORIDA. (SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 4; Page 10; 26pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Goate AM, Hardy JA, Roberts GW;
                                                                                                                                                                                                                                                                                                         576 crecercacererrae 593
                                                                                                                                                                                                                                                                                                                                                                             crecarcacricrcrake 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97EP-00300323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96US-0010241P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAT93655 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1997-365951/34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-FEB-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-JAN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-JUL-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EP785282-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT93655;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 708
AAT93655
AXC AAT9365
XX AAT9365
XX E-FEB.
XX E-FEB.
XX HOMD 86
XX HOMD 86
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX HOMD 87
XX 
    SXS
```

```
ö
                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Y chromosome; integrity; chromosome locus; primer; amplification; PCR; polymerase chain reaction; fertility; azoospermia; oligospermia; primetrile; diagnoss; DYS219; DYS219; DYS211, DYS31, DYS13; DYS11, DYS211, DYS211, DYS13; DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, DYS11, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT68125-T68336 are a set of primers used in a method for assessing the integrity of a Y chromosome. The primers are capable of priming the chromosome loci: DYS201, DYS198, DYS199, DYS196, and MIC2. The method can be used to rapidly and reproducibly assess the integrity of specific regions of the Y chromosome that are associated with male fertility. It can be used to assess the integrity of the Y chromosome in males exhibiting azoospermia or oligospermia (no or very little spermatozoa in the semen) or to assess the genotype of infance of phenotypically ambiguous sexuality. The method can also be used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Assessing integrity of Y chromosome - by amplification of selected human chromosome loci by multiplex PCR and comparison with normal control DNA.
                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Loci-specific primer for assessing integrity of human Y chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.6%; Score 13.2; DB 1; Length 20; 33.3%; Pred. No. 5.6e+02; ve 0; Mismatches 3; Indels
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20 BP; 2 A; 5 C; 6 G; 7 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Muallem A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 2; Page 51; 111pp; English.
                                                                                                                                      832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         147 GCTGCAGCTCCATACTTG 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTGCTCCATTCTTG 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diagnosis and quality control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95US-00472416.
95US-00531556.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 83.3%;
Matches 15; Conservative
Best Local Similarity 83.3%;
Matches 15; Conservative
                                                                                                                                                                                             TGGTAATGTGGTTGGTGA
                                                                                                                                      TGGTACTGTGGGTGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAT68332 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Agoulnik AI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (PROM-) PROMEGA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1997-099942/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9641007-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         First MK,
                                                                                                                                      815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAT68332;
                                                                                                                                                                                                                                                                                                                                                                                                                       AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT6832

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

AAT68332

A
```

RESULT 710

1.6%; Score 13.2; DB 1; Length 20;

PS-1 gene; mutation; transition; Alzheimer's disease; dementia; Chromosome 14; transgenic model; PCR; primer; amplification; ss.

Synthetic.

AAV00264 standard; DNA; 20 BP.

(first entry)

28-MAY-1998

AAV00264

PS-1 gene PCR primer 5.

```
The present invention describes a nucleic acid segment comprising at least 10 contiguous nucleotides from a vegetal sequence including a polymorphic site which is a single nucleotide polymorphic site which is a single nucleotide polymorphic on (SNP), or the complement of the segment. Also described are: (1) an allele-specific oligonucleotides hybridising to segment, or their complements, and (2) a method of analysing nucleic acids from a subject, by determining if a base is occupying any one (or a set) of polymorphic sites in 261 sequences derived from six maize lines (see AAV47701 to AAV47961). The segments are useful in fingerprint analysis in plants to determine which polymorphisms are present, which strain a plant belongs to and to distinguish between strains. The polymorphisms may correlate with phenotypic traits (e.g. plant growth rate or crop yield), and the segments are useful to determine the presence/absence of particular traits. The segments are also useful in marker assisted back-cross techniques to select plants with the existence/absence of particular traits. The segments are also useful in marker assisted back-cross techniques to select plants with a higher percentage of recurrent parent to a back-cross population. Segments incorporate SNPs which occur more frequently than other polymorphism types and are therefore more likely to be located close to genetic loci of interest, different forms of characterised SNPs are also often easier to detect than other polymorphism types and are selected on 27-AUG-2003 to be a select invention as markers and PCR primers. (Updated on 27-AUG-2003 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vegetal sequences including single nucleotide polymorphism - useful, e.g. to determine polymorphisms in plants, determine strain in plant breeding and to correlate polymorphisms with phenotypic traits.
                                                                                                                                                                                                                                                                                                                                                                                   Maize, marker, probe, PCR primer, polymorphism, vegetal sequence, polymorphic site, corn, graminae species, ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seguence 20 BP; 6 A; 3 C; 8 G; 3 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                  Maize oligonucleotide marker S34R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 2; Page 9; 32pp; English
                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97WO-EP007134.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96US-0032069P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 83.3%;
Matches 15; Conservative
                                        AAV40341 standard; DNA; 20
                                                                                                                                                                                               (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1998-399160/34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            correct OS field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (BIOC-) BIOCEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            409830717-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Murigneux A;
                                                                                                                                                                                               27-AUG-2003
14-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                  AAV40341;
AAV40341/C
XX
AC AAV4034
AC AAV4034
AXC AAV4034
DT 27-AUG-
DT 14-OCT-
XX
MAIZE;
XX
MAIZE;
XX
MO9830
XX
WO9830


```
This novel PCR primer is one of a pair (the other being AAV00265), used in the amplification of the PS-1 gene (exon 5). Three mutations were identified at codon 139, 143, and 146 arising prom a A to G transition (M139, 1143F, and M146V). The variant of the PS-1 and S182 gene can be diagnosis and treatment of other forms of dementia giving rise to progressive intellectual deterioration closely resembling the dementia progressive intellectual deterioration closely resembling the dementia associated with Alzheimer's disease, and for which treatment is a vaciated with Alzheimer's disease. Identification of the mutants provides strong evidence that mutations in the S182 gene are the cause of early onset Alzheimer's disease in Chromosome 14-linked pedigrees, and it is therefore possible to develop models of Alzheimer's disease using transgenic model systems and/or whole cell systems containing the mutants. These models can be used to screen and evaluate the efficacy of drugs in treating Alzheimer's disease, and enable the investigation of S182 biochemistry and its relationship to Alzheimer's disease to provide a basis for rational drug design
 Variant S182 or PS-1 gene associated with Alzheimer's disease - with mutation at codon 139, 143, 267, 280, 146 or 269, useful in early-onset Alzheimer's diagnosis and to develop models for drug testing.
 Gaps
 ;
 Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02;
 Indels
 Hutton ML;
 Seguence 20 BP; 3 A; 0 C; 9 G; 8 T; 0 U; 0 Other;
 Hardy JA,
 0; Mismatches
 Claim 12, 14, 22; Page 11; 16pp; English.
 ST MARYS HOSPITAL MED SCHOOL. UNIV SOUTH FLORIDA.
 Clark RF, Goate AM, Collinge J,
 815 TGGTACTGTGGGTGCTGA 832
 19
 BP.
 97EP-00303816.
 96US-0019222P.
 1.6%;
 2 recraarcrecreas
 AAV22541 standard; DNA; 20
 08-JUL-1998 (first entry)
 Matches 15; Conservative
 (UNIW) UNIV WASHINGTON
 WPI; 1998-020955/03
 Query Match
Best Local Similarity
 04-JUN-1997;
 06-JUN-1996;
 EP811695-A2.
 10-DEC-1997
 AAV22541;
 (UYSF-)
 (STMA
 RESULT 712
 AAV22541/
ID AAV2
Š
 g
```

Antisense oligonucleotide designed to target the R1 message. XXXXXX

ö

Gaps

. 0

152 AGCTCCATACTTGCACCA 169

ò 셤

18 Arcreargerrecree 1

RESULT 711 AAV00264

.; 0

Cowsert LM;

```
AAZ37473-237738 represent human mdm2 phosphorothicate oligonucleotides. AAZ37411, AAZ37727, AAZ37739, AAZ37740 and AAZ37741 are used in the exemplification of the present invention. The present invention describes novel nucleotide antisense compounds, targetted to the 5' untranslated, translation termination codon, or 3' untranslated region of a nucleic acid encoding human mdm2, that modulates expression of human mdm2. The oligonucleotides mediate their effect by antisense inhibition of hyperproliferative gene expression. The antisense compound is used to treat an animal having a disease or condition associated with mdm2, particularly a hyperproliferative condition, more particularly cancer, especially of the blood, brain, breast, lung or soft tissue, or postiasis, fibrosis, atherosclerosis or restenosis
 New antisense compounds used to treat eg. hyperproliferative conditions
 Human mdm2 gene; proliferation; tumour; phosphorothioate; p53; cancer; antisense; modulation; oligonucleotide; expression; inhibition; hyperproliferation; blood cancer; brain cancer; breast cancer; lung cancer; soft tissue cancer; psoriasis; fibrosis; atherosclerosis; rescenosis; ss.
 Query Match
1.6%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
 Human mdm2 phosphorothioate oligodeoxynucleotide #93.
 Sequence 20 BP; 6 A; 5 C; 3 G; 6 T; 0 U; 0 Other;
 Nero P, Graham MJ, Monia BP,
 Graham MJ, Monia BP,
 Example 9; Page 49; 157pp; English.
 485
 7
 563/c
AAZ37563 standard; DNA; 20 BP.
 98US-00048810.
 99WO-US006702
 99WO-US006702
 98US-00048810
 468 CTCCAGGAACTTGGCATT
 19 CTACAGGAACTIGGTAGT
 07-JAN-2000 (first entry)
 (ISIS-) ISIS PHARM INC
 PHARM INC
 Nero P,
 WPI; 1999-610754/52.
 Miraglia LJ,
 26-MAR-1999;
 V09949065-A1
 26-MAR-1999;
 26-MAR-1998;
 SISI (-SISI)
 Homo sapiens
 W09949065-A1
 26-MAR-1998;
 30-SEP-1999,
 30-SEP-1999
 Synthetic
 AAZ37563;
 714
 AAZ37563/C
XX
AC AAZ3
XX
DT 07-J
XX
DE Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
XX
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M Huma
M H
 RESULT
g
 AAV22531-89 represent antisense oligonucleotides which are targeted against the mRNA of the R1 subunit sequence of ribonucleotide reductase. Aberrant expression of the R2 gene, which encodes the second subunit of the ribonucleotide reductase. Which encodes the second subunit of the ribonucleotide reductase gene, can determine the malignant characteristics of cells. Suppression of R2 and R1 gene expression was found to reduce transformed properties of tunnour cells The antisense oligonucleotides can be used for modulating tumour cell growth, or for inhibiting tumour cell proliferation. They can also be used for increasing the sensitivity of neoplastic cells to chemotherapeutic drugs increasing the sensitivity of neoplastic cells to chemotherapeutic drugs oligonucleotides may be used to treat proliferative disorders including leukaemias, lymphomas, sarcomas, melanomas, various other forms of cancer, papillomas, arthrosclerosis, psoriasis, polythemia, mastocytosis, autoimmune diseases, angiogenesis, bacterial infections and viral infections (including HIV hepatitis, or herpes infections)
 ö
 Antisense oligonucleotides to ribonucleotide reductase genes - used to modulate tumour growth and inhibit tumour cell proliferation.
 Human mdm2 gene; proliferation; tumour; phosphorothioate; p53; cancer; antisense; modulation; oligonucleotide; expression; inhibition; hyperproliferation; blood cancer; brain cancer; breast cancer; lung cancer; soft tissue cancer; psoriasis; fibrosis; atherosclerosis;
 R1 subunit; ribonucleotide reductase; cell proliferation; tumour cell;
 Gaps
 ;
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels
 antisense; growth; inhibition; sensitivity; hydroxyurea;
chemotherapeutic drug; methotrexate; PALA; treatment; ss.
 Human mdm2 phosphorothioate oligodeoxynucleotide #101.
 Sequence 20 BP; 7 A; 5 C; 3 G; 5 T; 0 U; 0 Other;
 (GENE-) GENESENSE TECHNOLOGIES INC.
 Claim 8; Page 47; 79pp; English
 816 GGTACTGTGGGTGCTGAA 833
 18 daractridecrecidaa 1
 ВР
 97WO-CA000540.
 96US-0023040P.
 Local Similarity 83.3
 Wright JA, Young AH;
 WPI; 1998-145609/13.
 Homo sapiens
 02-AUG-1996;
07-MAR-1997;
 WO9805769-A2
 01-AUG-1997;
 12-FEB-1998,
 Synthetic
 Query Match
```

Best Loca Matches

ò g RESULT 713

1. 2.

.. 0

Gaps

ö

```
AA237473-Z33738 represent human mdm2 phosphorothioate oligonucleotides. AAZ3741, AAZ3742, AAZ37739, AAZ37740 and AAZ37741 are used in the exemplification of the present invention. The present invention describes novel nucleotide antisense compounds, targetted to the 5' untranslated, translation termination codon, or 3' untranslated region of a nucleic acid enrocains human mdm2, that modulates expression of human mdm2. The oligonucleotides mediate their effect by antisense inhibition of hyperproliferative gene expression. The antisense compound is used to treat an animal having a disease or condition associated with mdm2, particularly a hyperproliferative condition, more particularly cancer, especially of the blood, brain, breast, lung or soft tissue, or psoriasis, fibrosis, atherosclerosis or restenosis
 New peptides derived from cocaine and amphetamine regulated transcript (CART) polypeptides - useful for, e.g. treating addictive behavioural problems and regulating body weight in humans with bullimia and anorexia.
 New antisense compounds used to treat eg. hyperproliferative conditions.
 Seguence 20 BP; 9 A; 5 C; 2 G; 4 T; 0 U; 0 Other;
 Page 49; 157pp; English.
 492 GATCTAATTGGAGATTTG 509
 CART missense oligonucleotide.
 20 GATCTTCTAGGAGATTTG 3
 98WO-US009051.
 83.38;
 97US-0045455P.
 AAV68444 standard; DNA; 20
 (first entry)
 Local Similarity 83.3
nes 15; Conservative
 Lambert PD,
 WPI; 1999-610754/52
 WPI; 1999-009380/01
 (UYEM-) UNIV EMORY.
 WO9848824-A1
 01-MAY-1998;
 01-MAY-1997;
 29-MAR-1999
 05-NOV-1998.
 Synthetic.
 Kuhar MJ,
 AAV68444;
 Query Match
 RESULT 715
 Matches
 AAV68444
ઠ
 엄
```

```
WPI; 1999-059149/05.
 03-JAN-1997;
 09-FEB-1999
 23-JUN-1994;
 US5847095-A.
 23-JUL-1985;
 04-AUG-1987;
21-APR-1992;
 08-DEC-1998
 Synthetic.
 AAV73138;
 Bos JL,
 RESULT 716
 AAV73138,
 셤
 ö
 Gaps
 Cocaine and amphetamine regulated transcript protein; CART; rat; appetite; eating disorder; anorectic; obesity; diabetes; Prader-Willi syndrome; anorexia, bulmina; cachexia; attention deficit hyperactivity disorder; addiction; therapy; psychostimulant; neuromodulator; neurotransmitter; antisense; ss.
 ö
1.6%; Score 13.2; DB 1; Length 20;
33.3%; Pred. No. 5.6e+02;
 3; Indels
 Pred. No. 5.6e
0; Mismatches
 Couceyro PR;
```

```
·
0
 AAV66445) were used in experiments to determine the effects of CART antisense oligonucleotide (see AAV66444) and one sense oligonucleotide (see AAV66445) were used in experiments to determine the effects of CART antisense oligonucleotides on the cocaine dose-response curve of rats. CART peptides (see AAW61337-45) are suggested to be neurotransmitters or neuromodulators in circuitry related to psychostimulant drug action. Administration of CART antisense oligonucleotides into the nucleus accumbens bilaterally depressed the locomotor response of rats to cocaine, but statistically significant results were not obtained. Bilacative peptides (see AAW61337-39 and AAW8134-45) derived from rat and human CART are used in claimed methods for modulating food consumption in an animal or human to which they are administered. Antagonists and
 AAV73084-V73145 are oligomers used in a method to detect a single-base mutation in a human ras oncogene. These probes comprise 12-43 nucleotides of formula 5'-B-Q-D-3', Q = 3 nucleotides complementary to the mutated codon, and B and D each = 0-20 nucleotides complementary to the ras sequences flanking the mutated codon. The probes are useful for detecting cancers associated with point mutations
 antibodies raised against the peptides are also used in claimed methods for modulating body weight disorders, attention deficit hyperactivity
 Gaps
 Probes for detecting ras oncogene point mutations - useful for the diagnosis of cancer associated with single base mutations.
 ;
0
 1.6%; Score 13.2; DB 1; Length 20; 3.3%; Pred. No. 5.6e+02;
 Ras oncogene; probe; point mutation; detection; cancer; ss.
 Antisense oligonucleotides (see AAV68441-43), one missense
 Indels
 Human ras oncogene mutant detecting oligomer N-61 pl.
 Sequence 20 BP; 5 A; 4 C; 8 G; 3 T; 0 U; 0 Other;
 disorder, and cocaine or amphetamine addiction
 0; Mismatches
 Disclosure, Col 19-20; 18pp; English.
 320 CTGCAGAGAAGCTGTGGA 337
 18
 ВЪ.
 85US-00758104.
87US-00081490.
92US-00873352.
94US-00264425.
 97US-00778543.
 83.3%;
 1 ceccacacacaacricieca
 AAV73138 standard; DNA; 20
 (first entry)
 Query Match 1.6
Best Local Similarity 83.3
Matches 15, Conservative
 (UYLE-) RIJKSUNIV LEIDEN
 Van Der Eb AJ;
ò
```

1.6%; Score 13.2; DB 1; Length 20;

Query Match

This is the nucleotide sequence of a cocaine and amphetamine regulated transcript (CART) missense oligonucleotide. 3 Types of oligonucleotide were prepared: unmodified phosphoclater backbone; and 5' and 3' thioester capped. The latter have a longer half-life and are preferred. 3

Example 4; Page 19; 53pp; English.

Sequence 20 BP; 2 A; 6 C; 2 G; 9 T; 0 U; 1 Other;

```
schubbe-1.rng
```

```
AAZ05066;
ઠે
 g
 PCR primers AAZ01426-Z06209 were used to amplify open reading frames (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs anchode polygeptides (see AAX16759-4737949) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis; genital diseases such as nongonococcal uretritis, pepidymitis, cervicitis, salpingitis, perimpatitis, bartholinitis; pneumopathy in breast feeding infants; and venereal lymphogramulomatosis. The polypeptides of the invention may be of use in treating these
 ö
 Vaccine; eye disease; conventional trachoma; nonendemic trachoma; paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis; nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer; bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
 Gaps
 ö
 ch 1.6%; Score 13.2; DB 1; Length 20; I Similarity 83.3%; Pred. No. 5.6e+02; 15; Conservative 0; Mismatches 3; Indels
 PCR primer used to amplify an ORF of Chlamydia trachomatis.
 Indels
 Sequence 20 BP; 6 A; 4 C; 7 G; 3 T; 0 U; 0 Other;
 78.9%; Pred. No. 5.6e+02;
 Genome sequence of Chlamydia trachomatis.
 Disclosure; Page 1817; 1755pp; English.
 785
 6
 20 Acagcradanadaadaaci 2
 97FR-00015041.
97FR-00016034.
98US-0107077P.
 98WO-IB001939
 767 AGAACTGGAGAAGAGTGT
 AAZ06004 standard; DNA; 20
 07-OCT-1999 (first entry)
 Best Local Similarity 78.9
Matches 15; Conservative
 Synthetic.
Chlamydia trachomatis.
 WPI; 1999-371125/31
 (GEST) GENSET
 27-NOV-1998;
 17-DEC-1997;
04-NOV-1998;
 WO9928475-A2
 28-NOV-1997;
 10-JUN-1999
 Griffais R;
 AAZ06004;
 DP
```

```
ö
 Vaccine, eye disease; conventional trachoma; nonendemic trachoma; paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis; nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer; bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
PCR primers AAZ01426-Z06209 were used to amplify open reading frames code polypeptides (see AAX01425). These ORFs encode polypeptides (see AAX05449) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conventionist genital diseases such as nongonococcal uretritis, epidymitis, cervicitis, salpinigitis, perihepatitis, bartholinitis, pheumopathy in breast feeding infants; and venereal lymphogranulomatosis. The polypeptides of the invention may be of use in treating these
 Gaps
 ·.
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels
 PCR primer used to amplify an ORF of Chlamydia trachomatis.
 Sequence 20 BP; 3 A; 5 C; 8 G; 4 T; 0 U; 0 Other;
 867 GAGCCCAACTCCATTGAG 884
 BP
 GATCCCAACGCCGTTGAG
 AAZ04278 standard; DNA; 20
 (first entry)
 Query Match
Best Local Similarity 83.3
Matches 15; Conservative
 07-OCT-1999
 AAZ04278;
 18
```

(first entry) 07-OCT-1999 PCR primer used to amplify an ORF of Chlamydia trachomatis

Vaccine, eye disease; conventional trachoma; nonendemic trachoma; paratrachoma; inclusion conjunctivitis; genital disease; perihepatitis; nongonococcal uretritis; epidymitis; cervicitis; salpingitis; PCR primer; bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.

Chlamydia trachomatis.

WO9928475-A2

10-JUN-1999

98WO-IB001939. 27-NOV-1998; 97FR-00015041. 97FR-00016034. 98US-0107077P. 28-NOV-1997;

17-DEC-1997; 04-NOV-1998;

(GEST ) GENSET

Griffais R;

WPI; 1999-371125/31.

Genome seguence of Chlamydia trachomatis.

Disclosure, Page 1740; 1755pp; English.

Gaps

. 0

795

778 AGAAGTGTGAGCGCAAAC AGAGGTGTGGTCGCAAAC

Local Similarity

Best Loca Matches

Query Match

19

N

BP.

RESULT 718 AAZ05066/c ID AAZ05066 standard; DNA; 20

```
(ORFS) of the genome of Chamydia traccomatis (see AAZ01425). These ORPs encode polypeptides (see AAY36754-Y37949) which can be used as vaccines against Chlamydia trachomatis. Antisonse and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis, genital diseases such as nongonococcal uretritis, perior pepidymitis, cervicitis, salpingitis, perior infepatitis, bartholinitis, penumopathy in breast feeding infants; and veneral lymphogranulomatosis.
 primers AAZ01426-Z06209 were used to amplify open reading
 Sequence 20 BP; 4 A; 4 C; 6 G; 6 T; 0 U; 0 Other;
 sequence of Chlamydia trachomatis.
 Genome sequence of Chlamydia trachomatis.
 Disclosure; Page 1444; 1755pp; English.
 456 TTCCAGGAAGAGCTCCAG 473
 20 TGCCAATAAGAGCTCCAG 3
 AAZ03621 standard; DNA; 20 BP.
97FR-00016034.
98US-0107077P.
 1.6%;
 (first entry)
 Query Match 1.6
Best Local Similarity 83.3
Matches 15; Conservative
 Chlamydia trachomatis.
 WPI; 1999-371125/31.
 WPI; 1999-371125/31.
 (GEST) GENSET
 GENSET
17-DEC-1997;
04-NOV-1998;
 W09928475-A2
 27-NOV-1998;
 07-OCT-1999
 28-NOV-1997;
17-DEC-1997;
 04-NOV-1998;
 Griffais R;
 10-JUN-1999
 Griffais R;
 Synthetic
 AAZ03621;
 diseases
 (GEST)
 AAZ03621/
 Q
 à
 ô
 PCR primers AAZ01426-Z06209 were used to amplify open reading frames (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs encode polypeptides (see AAX36793-Y37949) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis; genital diseases such as nongonococcal uretritis, corvicitis, salpingtis, perihapatitis, bartholinitis; pneumopathy in breast feeding infants; and veneral lymphogramulomatosis. The polypeptides of the invention may be of use in treating these
 Vaccine, eye disease, conventional trachoma, nonendemic trachoma, paratrachoma, inclusion conjunctivitis, genital disease, perihepatitis, nongonococcom uretritis, epidymitis, cervicitis, salpingitis, PCR primer, bartholinitis, pneumopathy, venereal lymphogranulomatosis, ss.
 Gaps
 .
0
 1.6%; Score 13.2; DB 1; Length 20; ilarity 83.3%; Pred. No. 5.6e+02; Conservative 0; Mismatches 3; Indels
 PCR primer used to amplify an ORF of Chlamydia trachomatis.
 Sequence 20 BP; 3 A; 7 C; 3 G; 7 T; 0 U; 0 Other;
 Genome sequence of Chlamydia trachomatis.
 Disclosure; Page 1675; 1755pp; English.
 322 GCAGAGAAGCTGTGGAGC 339
 97FR-00015041.
97FR-00016034.
98US-0107077P.
 Н
 AAZ01456 standard; DNA; 20 BP
 98WO-IB001939.
 97FR-00015041.
 98WO-IB001939.
 18 GCAGAGAGACTGTGTAGC
 (first entry)
 Synthetic.
Chlamydia trachomatis.
 Chlamydia trachomatis
 WPI; 1999-371125/31
 Local Similarity
es 15; Conserv
 (GEST) GENSET
 WO9928475-A2
 27-NOV-1998;
 17-DEC-1997;
04-NOV-1998;
 28-NOV-1997;
 07-OCT-1999
 W09928475-A2
 28-NOV-1997;
 10-JUN-1999
 Griffais R;
 0-JUN-1999
 AAZ01456;
 Synthetic
 Query Match
 Best Loc
Matches
 RESULT
```

g

; 0

Gaps ; 0

Indels

0; Mismatches

Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02;

```
Vaccine, eye disease; conventional trachoma, nonendemic trachoma, paratrachoma, inclusion conjunctivitis; ganital disease; perihepatitis; nongonococoma uretritis; epidymitis; cervicitis; salpingitis; PCR primer; bartholinitis; pneumopathy; venereal lymphogranulomatosis; ss.
PCR primer used to amplify an ORF of Chlamydia trachomatis.
 97FR-00015041.
97FR-00016034.
98US-0107077P.
 98WO-IB001939
```

PCR primers AAX26713-14 represent PCR primers used to amplify part of the TSA2004 gene. The specification describes a human pancpin gene. The phancpin gene encodes a protein branclogous to the serine protease inhibitor of serpin. The products may be used for gene therapy, e.g. treatment of cancers. The pancpin gene can be formulated into a drug composition for gene therapy of pancreatic cancer/tumour and for inhibition of its metastasis to suppress further malignant transformation and proliferation. Such genes can also be applied in clarifying, diagnosing, preventing and treating pancreatic cancer and its metastasis PCR primers AAZ01426-Z06209 were used to amplify open reading frames (ORFs) of the genome of Chlamydia trachomatis (see AAZ01425). These ORFs aencade polypeptides (see AAX36754-Y37949) which can be used as vaccines against Chlamydia trachomatis. Antisense and ribozyme sequences can also be used to control growth of the microorganism. Chlamydia trachomatis is responsible for a large number of diseases, e.g. eye diseases such as conventional trachoma, nonendemic trachoma, paratrachoma, and inclusion conjunctivitis; genital diseases such as nongonococcal uretritis, epidymitis, cervicitis, salpingitis, perimpatitis, barkholinitis; pneumopathy in breast feeding infants; and venereal lymphogranulomatosis. The polypeptides of the invention may be of use in treating these Human pancpin gene; serine protease inhibitor; serpin; gene therapy; cancer treatment; pancreatic cancer; tumour; TSA2004 gene; PCR primer; Drug compositions, useful for, e.g. gene therapy with efficacious treatment of pancreatic cancer and inhibition of its metastasis. Sequence 20 BP; 6 A; 6 C; 4 G; 4 T; 0 U; 0 Other; PCR primer used to amplify the TSA2004 gene. Disclosure; Page 1621; 1755pp; English. Example 1; Page 106; 112pp; Japanese. 747 ITGGTCCTTAAGGAGATG 764 18 TIGGCCCTCAAGGATATG 1 (SAKA ) OTSUKA PHARM CO LTD AAX26714 standard; DNA; 20 Ozaki K, Nagata M, Niimi M; WPI; 1999-205189/17. Best Local Similarity Matches 15; Conserv 28-AUG-1998; 18-JUN-1999 WO9911786-A1 01-SEP-1997; 10-FEB-1998; 11-MAR-1999 Synthetic. AAX26714; Query Match diseases RESULT 722 AAX26714 셤

(first entry)

Fujiwara T, Hirano H, Kyushiki H, Okamoto

97JP-00252770. 98JP-00044312. 98WO-JP003841

The invention relates to a mammalian PG1 gene and protein, and a set of PG1 biallelic markers. The PG1 polynucleotide and biallelic markers are used in a hybridisation assay, a sequencing assay, or in an allelect appecipic amplification assay for determining the identity of a nucleotide at a PG1-related biallelic marker. The methods can be used to detect and to assess the risk of developing cancer or prostate cancer. Early-stage diagnosis of prostate cancer relies on prostate specific antigen (PSA) dosage. However, the effectiveness of this is limited due to its constillity to discriminate between malignant and non-malignant affections of the organ. A need exists for both a reliable diagnostic procedure which would enable early-stage diagnosis, and for preventative and detection of prostate cancer, and the risk of developing it in the future, and can also be used to determine therapies for the disease ö ó PG1 gene; biallelic marker; PCR primer; PG1-related biallelic marker; cancer; prostate cancer; diagnosis; therapy; prostate specific antigen; Use of a prostate cancer associated gene and biallelic markers derived Gaps Gaps ö ö 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.68+02; ive 0; Mismatches 3; Indels Indels Bougueleret L; Sequence 20 BP; 6 A; 6 C; 6 G; 2 T; 0 U; 0 Other; 0; Mismatches Chumakov I, PCR primer for PG1 gene exon border. Example 8; Page 262; 385pp; English. 0; 303 GCCCTGCATGGGAAAGAC 320 493 13 멾 98WO-IB002133. 97US-00996306. 98US-0099658P 476 ACTIGGCATICCICAGGA ACTTGGCAATTCTCAAGA AAZ01017 standard; DNA; 20 (first entry) 15; Conservative 15; Conservative Cohen D, Blumenfeld M, WPI; 1999-405178/34. Local Similarity PSA; human; ss. (GEST ) GENSET Homo sapiens. 22-DEC-1998; WO9932644-A2 22-DEC-1997; 09-SEP-1998; 27-SEP-1999 01-JUL-1999. Synthetic. AAZ01017; Query Match from it. Matches Matches RESULT 723 AAZ01017 ઠે 셤 ઠે

10.4 10.4 10.4

Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02;

1.6%; c; 3

Local Similarity

·.

Gaps

. 0

1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels

Conservative

Query Match

G, 6 T; 0 U; 0 Other;

ທ

Sequence 20 BP; 6 A;

AAX97163/

```
AAX91991-X97517 represent PCR primers used to amplify open reading frames and other nucleic acid sequences from the genome of Chlamydia pneumoniae (see AAX91990). C. pneumoniae causes respiratory disease such as pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent citis media, erythema nodosum or pharyngitis. The polypeptides encoded by the open reading frames of the C. pneumoniae genome (see AAY34584- AAX3689) can be used in immunogenic compositions as vaccines. Vectors containing C. pneumoniae especially where the vector directs the expression of a neutralising epitope of C. pneumoniae
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 Sequence 20 BP; 2 A; 3 C; 7 G; 8 T; 0 U; 0 Other;
 Genome sequence of Chlamydia pneumoniae.
 Page 1708; Disclosure; 1912pp; English.
 132 ATGTCTGCTTTGGGGGCT 149
 20
 BP.
 98WO-IB001890
 97FR-00014673.
 Query Match
Best Local Similarity 83.3%;
Matches 15; Conservative
 3 ATTICTGCATTGGGGGTT
 AAX95980 standard; DNA; 20
 (first entry)
 Synthetic.
Chlamydophila pneumoniae.
 Chlamydophila pneumoniae.
 WPI; 1999-357842/30.
 (GEST) GENSET
 20-NOV-1998;
 21-NOV-1997;
04-NOV-1998;
 WO9927105-A2
 WO9927105-A2
 03-JUN-1999
 13-SEP-1999
 Griffais R;
 Synthetic
 726
à
 원
 ó
 AAX91991-X97517 represent PCR primers used to amplify open reading frames and other nucleic acid sequences from the genome of Chlamydia pneumoniae (see AAX41990). C. pneumoniae causes respiratory disease such as pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema nodosum or pharyngitis. The polypeptides encoded by the open reading frames of the C. pneumoniae genome (see AAX14584- AAX15879) can be used in immunogenic compositions as vaccines. Vectors containing C. pneumoniae mucleotides sequences can also be used as immunogenic compositions, especially where the vector directs the expression of a neutralising epitope of C. pneumoniae
 Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis; sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primer; ss.
 Gaps
 o,
 Primer used to amplify Chlamydia pneumoniae polynucleotides.
 1.6%; Score 13.2; DB 1; Length 20; 13.3%; Pred. No. 5.6e+02; ve 0; Mismatches 3; Indels
 Sequence 20 BP; 2 A; 8 C; 5 G; 5 T; 0 U; 0 Other;
 Genome sequence of Chlamydia pneumoniae.
 Page 1882; Disclosure; 1912pp; English.
 719 ATTICAGGAGCTGCGGTA 736
 AAX97163 standard; DNA; 20 BP
 AATGCAGGAGCTGCGGCA 1
 AAX94936 standard; DNA; 20 BP
 98WO-IB001890
 97FR-00014673
 98US-0107078P
 Local Similarity 83.3%;
les 15; Conservative
 (first entry)
 (first entry)
 Chlamydophila pneumoniae.
 WPI; 1999-357842/30
 GEST) GENSET
 WO9927105-A2
 20-NOV-1998;
 21-NOV-1997;
 04-NOV-1998;
 13-SEP-1999
 03-JUN-1999
 13-SEP-1999
 Griffais R;
 Synthetic
 AAX97163;
 8
 Query Match
```

ö

Gaps

. 0

```
Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis; sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primer; ss.
PCR primer used to amplify an ORF of Chlamydia pneumoniae.
 98WO-IB001890
 97FR-00014673.
98US-0107078P.
 20-NOV-1998;
 04-NOV-1998;
 21-NOV-1997;
 03-JUN-1,999.
```

מטאמט י הטמט

Respiratory disease, pneumonia, bronchitis, heart disease, sarcoidosis, sinusitis; purulent ortitis media: erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primar, sa

PCR primer used to amplify an ORF of Chlamydia pneumoniae.

RESULT 725

AAX94936

Matches

ò g

AAX91991-X97517 represent PCR primers used to amplify open reading frames and other nucleic acid sequences from the genome of Chlamydia pneumoniae (See AAX91990). C. pneumoniae causes respiratory disease such as pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent cittis media, erythema nodosum or pharyngitis. The polypeptides encoded by the open reading frames of the C. pneumoniae genome (see AAY34584 AAX35879) can be used in immunogenic compositions as vaccines. Vectors containing C. pneumoniae proteins sequences can also be used as immunogenic compositions, especially where the vector directs the expression of a neutralising epitope of C. pneumoniae Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis; sinusitis; purulent otitis media; erythema nodosum; pharyngitis; vaccine; neutralising epitope; PCR primer; ss. PCR primer used to amplify an ORF of Chlamydia pneumoniae. Sequence 20 BP; 6 A; 2 C; 8 G; 4 T; 0 U; 0 Other; Genome sequence of Chlamydia pneumoniae. Genome sequence of Chlamydia pneumoniae Page 1790; Disclosure; 1912pp; English. 758 GGAGATGGCAGAACTGGA 775 GTAGATGGCAAAGCTGGA AAX93026 standard; DNA; 20 Chlamydophila pneumoniae 15; Conservative WPI; 1999-357842/30. WPI; 1999-357842/30 Local Similarity (GEST ) GENSET WO9927105-A2 20-NOV-1998; 21-NOV-1997; 04-NOV-1998; 03-JUN-1999 Griffais R; Griffais R; Synthetic AAX93026; Query Match Matches AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX93026/AAX92026/AAX92026/AAX92026/AAX à

₽.

(first entry)

```
targets a region of the murine tumour necrosis factor alpha (TNFalpha)

targets a region of the murine tumour necrosis factor alpha (TNFalpha)

concloride sequence. TNFalpha is an important cytokine that plays a role nucleotide sequence. It is produced mainly in macrophages and monocytes in response to infection, invasion, injury or inflammation. Overexpression of TNFalpha can result in disease states, particularly in infectious, inflammatory and autoimmune diseases. The invention relates to antisense oligonucleotides, such as that represented by the present sequence which are capable of modularing the TNFalpha gene expression. The also optionally contain at least one 2'-O-methoxyethyl modification. The oligonucleotides are useful for modulating the expression of human cells and tissues, reducing a human cell inflammatory response, reducing the blood glucose level in a human and treating a human having a disease or condition associated with TNFalpha. Examples of
 Antisense oligonucleotide, phosphorothioate, TNFalpha, cytokine, inhibit, tumour necrosis factor alpha, inflammatory bowel disease, diabetes, themmatorid arthritis, infections disease, multiple sclerosis, hepatitis, panoreatitis, atopic dermatitis, allograft rejection; autoimmune disease,
 Oligonucleotide for treating diseases associated with human tumor necrosis factor-alpha (TNF-alpha) such as, diabetes and rheumatoid arthritis, comprises nucleotide sequence complementary to intron of
 Murine TNFalpha antisense oligonucleotide ISIS# 15926.
 Bennett CF, Butler MM, Shanahan WJ;
 Example 8; Page 73; 283pp; English.
 nucleic acid encoding TNF-alpha.
Н
 BP
 98US-00166186.
99US-00313932.
 99WO-US023205.
 18 TGTAGGGCAACATCAGGG
 AAA40882 standard; DNA; 20
 (first entry)
 inflammatory disease; ss
 (ISIS-) ISIS PHARM INC.
 WPI; 2000-303808/26.
 WO200020645-A1.
 05-OCT-1999;
 16-AUG-2000
 18-MAY-1999;
 13-APR-2000.
 Baker BF,
 Synthetic.
 AAA40882;
 RESULT 728
AAA40882/c
```

...

AAX91991-X97517 represent PCR primers used to amplify open reading frames and other nucleic acid sequences from the genome of Chlamydia pneumoniae causes respiratory disease such a pneumonia eauses respiratory disease such a pneumonia and bronchitis and is thought to be a contributing factor in heart disease, sarcoidosis, sinusitis, purulent otitis media, erythema

Page 1557; Disclosure; 1912pp; English.

97FR-00014673 98US-0107078P 98WO-IB001890

ö

Gaps

. 0

Length 20; 3; Indels

1.6%; Score 13.2; DB 1; 33.3%; Pred. No. 5.6e+02; ive 0; Mismatches 3;

83.3%;

Local Similarity 83.3 nes 15; Conservative

Query Match

TGTAGCCCAACAGCAGGG 568

551

ô

Gaps . 0

3; Indels

1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02;

0; Mismatches

Sequence 20 BP; 4 A; 7 C; 3 G; 6 T; 0 U; 0 Other;

C. pneumoniae

especially epitope of

8888888888

nodosum or pharyngitis. The polypeptides encoded by the open reading frames of the C. pneumoniae genome (see AAY34584- AAY35879) can be used in immunogenic compositions as vaccines. Vectors containing C. pneumoniae nucleotides sequences can also be used as immunogenic compositions, especially where the vector directs the expression of a neutralising

ò

```
ö
 The invention relates to a method of chemopreventing cancers sensitive to chemopreventative composition of a sufficient amount of a cancer chemopreventative composition comprising 4'-bromoflavone is a member of a family of compounds that induce phase II enzymes involved in the metabolic detoxification of xanobiotic compounds in mammals. One such phase II enzyme is quinone reductase. This enzyme promotes obligatory 2 electron reductions of quinones thus preventing promotes obligatory 2 electron reductions of quinones thus preventing nucleotides. Primers AAAII138-AII139 were used to detect quinone reductase mRNA expression in cells before and after treatment by the method of the invention. Primers AAAII140-AII141 were used to detect the rat beta-actin gene as a control for the mRNA detection step. The methods are used to prevent tumour growth and to suppress the initiation of cancers including carcinomas
 disease, multiple sclerosis, pancreatitis, rheumatoid arthritis, infectious disease, hepatitis, atopic dermatitis or allograft rejection. The antisense oligonuclectides are also useful for modulating the function of a selected nucleic acid sequence in adipose tissue
 diseases associated with TNFalpha include diabetes, inflammatory bowel
 Cytostatic, chemoprevention, cancer, 4'-bromoflavone; phase II enzyme; metabolic detoxification; xenobiotic compound; mammal; tumour growth; carcinoma; quinone reductase; PCR primer; ss.
 Methods of chemopreventing cancers sensitive to 4'-bromoflavone by administration of cancer chemopreventative composition comprising 4'-bromoflavone, avoids high costs.
 Gaps
 ·
 Query Match 1.6%; Score 13.2; DB 1; Length 20; Best Local Similarity 83.3%; Pred. No. 5.6e+02; Matches 15; Conservative 0; Mismatches 3; Indels
 Kosmeder JW, Moriarty RM;
 Sequence 20 BP; 3 A; 9 C; 1 G; 7 T; 0 U; 0 Other
 Primer #2 for rat beta actin gene.
 Disclosure; Col 10; 18pp; English.
 909 AAGTGAAAAGACAGCGGG 926
 Moon RC,
 ო
 AAA11141 standard; DNA; 20 BP
 98US-0079393P
 99US-00273203
 20 ATGTGGAAAGACAGAGGG
 (UNII) UNIV ILLINOIS FOUND.
 26-SEP-2000 (first entry)
 Song LL,
 WPI; 2000-282705/24.
 9-MAR-1999;
 26-MAR-1998;
 04-APR-2000
 US6046231-A
 Pezzuto JM,
 AAA11141;
 AAA11141/

XAC AAA11

XX DE Prim

XX Cyto

XX Cyto

XX Cyto

XX Cyto

XX Cyto

XX Cyto

XX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YX Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cyto

YY Cy
888888888
 8
 g
```

Clone vp8\_1 hybridisation probe, SEQ ID NO:111.

19-JUN-2000 (first entry)

AAA23493;

AAA23493 standard; DNA; 20

RESULT 730

AAA23493,

```
The invention relates to 40 human secreted proteins (AAY94981-Y95020), and ONNA sequences encoding them (AAA23423-A23462). The secreted proteins of the invention include those that are thought to be only partially secreted, i.e., transmembrane proteins. The proteins of the invention may exhibit one or more activities selected from the following: cytokine activity, cell proliferation, differentiation; immune modulation; haematopoiesis regulation; tissue growth activity, activin/inhibin activity; ohemocratic/chemokineinc activity; haemocratic/chemokineinc activity; and tumour inhibition activity. The proteins may be administered to patients as vaccines, and the nucleotides
 may be used as part of a gene therapy regime. Diseases or conditions that may be treated using the proteins or nucleotides of the invention include autoimmune diseases; genetic disorders; haemophilia, cardiovascular diseases; cancer; bacterial, fungal and viral infections, especially HIV; multiple sclerosis; rheumatoid arthritis; pulmonary inflammation; Guillain-Barre syndrome; insulin dependent diabetes mellitus; and allergic reactions such as asthma and anaemia. They may also be used for treating wounds, burns, ulcers, osteoporosis, osteoarthritis, periodontal diseases, Alzheimer's disease, parkinson's disease, and amyotrophic lateral sclerosis (ALS). Proteins with activinibin activity may additionally be useful as contraceptives, nucleic actid
 Human, secreted protein, cancer, tumour, cardiovascular disorder, blood disorder, haemophilia; autoimmune disease; diabetes; inflammation, infection; fungal; bacterial; viral; HIV; allergy, arthritis; neurodegenerative disease; asthma; contraceptive; hybridisation probe;
 New secreted or transmembrane proteins and polynucleotides encoding them, useful for treating neurodegenerative disorders, autoimmune diseases and
 Rapiejko
 Hall J,
 Disclosure; Page 343; 357pp; English.
 Hoffman H,
 98US-0097659P.
98US-0099618P.
98US-0102092P.
98US-0109978P.
 98US-0113645P.
98US-0113646P.
99US-00379246.
 98US-0097638P
 99WO-US019351
 Yuan O,
 (ALPH-) ALPHAGENE INC.
 WPI; 2000-224657/19.
 WO200011015-A1.
 Valenzuela D,
 24-AUG-1999;
 23-AUG-1999;
 02-MAR-2000.
 24-AUG-1998
 24-AUG-1998
 09-SEP-1998
 28-SEP-1998
25-NOV-1998
 23-DEC-1998
23-DEC-1998
 Ношо
```

מניני

c

Query Match
1.6%; Score 13.2; DB 1; Length 20;
Bast Local Similarity 83.3%; Pred. No. 5.6e+02;
Marches 15. Conservative n Mismatches 1 Indale

Sequence 20 BP; 4 A; 8 C; 2 G; 6 T; 0 U; 0 Other;

```
amplifying target DNA using polymerase chain reaction in a reaction matter discussed amplifying target DNA using polymerase chain reaction in a reaction mixture including a triphosphate decoxymucleoside labelled with a mixture including a triphosphate decoxymucleoside labelled with a mixture including a triphosphate despended with the endonuclease Cleavase I, pattern visualised through band analysis. The invention includes a method for the use of DNA fragments internally labelled with fluorocromes for the determination of alterations of a target DNA based on the conduclease activity of the enzyme Cleavase I. The method is useful for determining alterations in DNA sequences such as mutations, deletions, insertions, substitutions or variations in the nucleotide sequence. The method is useful for analysis of germinal or somatic mutations in genes method diseases, fine characterisation of microczanisms and in the sound of polymorphism and allelic frequencies. The prisent sequence represents a BRCA1 specific PCR primer. The primer is used in an example of the method for mutational analysis of the BRCA1 gene
 Determination of DNA sequence alterations for analysis of nucleotide variations, mutations or polymorphisms, comprises using the endonuclease Cleavase I and internal labeling of DNA fragments.
source of diagnostic primers and probes. Sequences AAA23463-A22502 represent hybridisation probes which may be used to isolate the cDNA clones of the invention
 Mutational analysis, Cleavase I; sequence analysis; breast cancer;
tumour transformation; PCR primer; human; ss.
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 Sequence 20 BP; 6 A; 3 C; 5 G; 6 T; 0 U; 0 Other;
 (ONCO-) IST ONCOLOGICO ROMAGNOLO COOP SOCIALE AR.
 Sequence 20 BP; 7 A; 5 C; 5 G; 3 T; 0 U; 0 Other;
 BRCA1 exon 16 specific PCR primer BR1 E16 3'
 932 CAGGITITGITITATGAG 949
 Example; Page 9; 19pp; English.
 CAGCTCTTGCTTTATGAG 1
 1.6%;
 99IT-MI000512
 AAA93961 standard; DNA; 20
 (first entry)
 Query Match 1.67
Best Local Similarity 83.33
Matches 15; Conservative
 WPI; 2000-618920/59.
 WO200055360-A2.
 Homo sapiens.
 12-MAR-1999;
 Calistri D,
 18-JAN-2001
 21-SEP-2000
 18
 AAA93961;
 RESULT 73
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AAA83961
AA
 8 X C C C
 ò
 ద
```

Chumakov I;

Cohen D, Blumenfeld M,

(GEST ) GENSET

21-APR-1998; 23-NOV-1998;

99WO-IB000822

21-APR-1999;

Human biallelic marker downstream amplification primer SEQ ID NO:10825

(first entry)

10-SEP-2001

AAZ76469;

BP.

AAZ76469 standard; DNA; 20

AAZ76469,

ö

Gaps

.. 0

1 CTTAGTCATTAGGGAGAT

746

상· 점

Human genome; biallelic marker; high density disequilibrium map; genomic map; haplotype; phenotype; polymcrphic base; gentyping; haplotyping; hybridisation; identification; characterisation; amplification; single nucleotide polymorphism; SNP; PCR primer; amplification; single nucleotide polymorphism; SNP; PCR primer;

diagnosis; ss. Homo sapiens

409954500-A2

```
·;
 AAZ65654 to AAZ69578 represent human biallelic markers from the present invention, which contain a polymorphic base at position 24 of their muclectide sequences. AAZ69579 to AAZ7440 represent amplification primers for the biallelic markers. The biallelic markers of the invention have a variety of uses: they can be used for high density mapping of the human genome, and in complex association studies and haplotyping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agents and diagnostic methods, as well as the characterisation of the differential efficacious responses to and side effects from pharmaceutical agents acting on a disease as well as other treatment. N.B. The SEQ ID NOS 2852, 2913, 2974, 3035, 3066, 3157, 3227, 3297 and 3167, are not actually given a sequence in the Sequence Listing from the
 Novel biallelic markers used to construct a high density disequilibrium
 Gaps
 ·,
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ive 0; Mismatches 3; Indels
 Sequence 20 BP; 4 A; 8 C; 3 G; 5 T; 0 U; 0 Other;
 Claim 9; Page 2538; 2745pp; English
 949 GTCAACAGCTGGGCAGGG 966
 1 Similarity 83.3%;
15; Conservative
 map of the human genome.
 WPI; 2000-013267/01
 Query Match
 Local
 Matches
ò
```

20 GrcackGrrcGGCAGAG 3

RESULT 733 AAA38459

ô

Gaps

· 0

1.6%; Score 13.2; DB 1; Length 20; ilarity 83.3%; Pred. No. 5.6e+02; Conservative 0; Mismatches 3; Indels

Best Local Similarity Matches 15; Conserv

AAA38459 standard; DNA; 20 BP

549 TCTGTAGCCCAACAGCAG 566 TCAGGAGCACAACAGCAG 19 CD28; feline; cat; recombinant virus; vaccine; immunomodulator; tumour; cancer; therapy; PCR; primer; ss.

Feline CD28 cDNA PCR primer CD28-768

(first entry)

28-FEB-2000

AAZ34893;

AAZ34893 standard; DNA; 20 BP

schu568-1.rng

```
Sequence 20 BP; 7 A; 6 C; 5 G; 2 T; 0 U; 0 Other;
 40200020576-A2
 01-OCT-1999;
 12-MAR-1999;
 32-OCT-1998;
 29-AUG-2000
 13-APR-2000
 AAA38459
 Miele L,
 Mus sp
```

AAZ34893/c g The invention relates to a novel method of inducing apoptosis in a target cell by inhibiting the expression or function of a Notch protein while the cell is undergoing differentiation. The invention also relates to proapoptotic compositions comprising a differentiation- inducing drug and an agent which inhibits the expression or function of a Notch protein.

Notch proteins play a role in the determination of cell fate. Many transformed cells retain the capacity to undergo terminal differentiation when treated with differentiation-inducing drugs, such as hexamethylene bisacetemade (HTMBA). This approach has been clinically tested as a potential cancer therapy, but treatment with HTMBA-type drugs alone can coadministration of HTMBA and either Notch antisense oligonucleotides or anti-Notch monoclonal antibodies enhances differentiation to a greater canti-Notch monoclonal antibodies enhances differentiation to a greater extent than HTMBA alone, meaning that the amount of HTMBA administered to a cell fate determining function of a Notch protein in the target cell at a time when the cell is undergoing differentiation induces apoptosis. The method and compositions are useful for inducing apoptosis in tumour cells which overexpress Notch for the treatment of Cancer that may be treated include cervical cancer, breast cancer and melanoma, and compositions are useful for inducing apoptosis in tumour cells which overexpress Notch-1 expression. The method and compositions may also be used to immunotased branscriptase-PCR (RT-PCR) concers used in an exemplification of the invention to generate both human and murine Notch-1 connect reverse transcriptase-PCR optimizer used in an exemplification of the invention in human and murine of the method of the invention of the invention of the invention of the invention of the invention of the invention of the invention of the invention of the invention of the invention of the invention of the invention of the invention of the invention of the invention of the invention of the used i Induction of apoptosis in target cells e.g. tumor cells to treat cancers, by inhibiting a cell fate determining function of a Notch protein whilst the cell is undergoing differentiation. Notch-1; murine; cell fate; Notch inhibition; expression; antibody; apoptosis induction; differentiation; hexamethylene bisacetamide; HWBA; atticancer; antisense oligonucleotide; reverse transcriptase-PCR; RT-PCR primer; ss. Murine Notch-1 antisense RT-PCR primer, SEQ ID NO:2. (USSH ) US DEPT HEALTH & HUMAN SERVICES. Claim 48; Page 19; 88pp; English Fuchs C; 99US-0124119P 99WO-US023162 98US-0102816P (first entry) Shields LS, WPI; 2000-303766/26

(SCHE ) SCHERING-PLOUGH LTD. (SCHE ) SCHERING-PLOUGH VETERINARY CORP.

Cochran MD

Winslow BJ,

99WO-US009504. 98US-00071711

30-APR-1999; 01-MAY-1998;

WO9957295-A1

Felis catus

Synthetic.

11-NOV-1999.

```
This oligonucleotide represents primer CD28-768 used in the PCR amplification of a 673 nucleotide fragment comprising the majority of the feline CD28 open reading frame. The primer is based on consensis regions of human, murine and rabbit CD28. HKS peripheral blood monouclear cell fudman, musine and rabbit CD28. HKS peripheral blood monouclear cell subsequently obtained. A full-length CDAN assubstants the invention relates to a recombinant virus that contains at least one foreign nucleic acid, inserted into a nonessential genemic region, that encodes felline CD28. CD80 or CTLA-4 protein, or their immunogenic fragments, and is expressed when the recombinant virus is introduced into a suitable host. The recombinant virus may
 further comprise a foreign nucleic acid encoding an immunogen derived from a feline pathogen. It is used to enhance or suppress an immune response in a feline, particularly as a vaccine
 Gaps
 Novel recombinant virus useful as immunomodulators, particularly in
 o;
 11.6%; Score 13.2; DB 1; Length 20; 13.3%; Pred. No. 5.6e+02; ve 0; Mismatches 3; Indels
 Seguence 20 BP; 4 A; 2 C; 9 G; 5 T; 0 U; 0 Other;
 Disclosure; Page 56; 230pp; English.
 211 CCCAGCCCTCTCCAGAAG 228
 20 ccrarcccrarccadade 3
 83.3%;
 AAA29833 Standard; DNA; 20
 Ouery Match
Best Local Similarity 83.3°
WPI; 2000-062155/05.
 AAA29833;
 RESULT 735
 AAA29833
 à
 ;
0
 Gaps
```

25-AUG-2000 (first entry)

; 0

Query Match 1.6%; Score 13.2; DB 1; Length 20; Best Local Similarity 83.3%; Pred. No. 5.6e+02; Matches 15; Conservative 0; Mismatches 3; Indels

ó

/\*tag= a /note= "Phosphorothioate linkages"

99US-00344001. 99US-00344001.

24-JUN-1999; 24-JUN-1999;

US6054440-A

(ISIS-) ISIS PHARM INC.

Location/Qualifiers

1. .20 /\*tag=

Key modified\_base

```
The present invention describes an antisense compound (1) of 8-30 nucleobases, specifically hybridising to, and inhibiting expression of, human jun N-terminal kinase kinase-2 (JKK-2). Also described is a method of inhibiting the expression of human JKK-2 in human cells or tissues, comprising contacting the cells or tissues, with (1), in vitro. (1) has antinflammatory, cytostatic and antinfectious activities. (1) is useful for inhibiting the expression of JKK-2 in human cells or tissues and prevents or delays infection, inflammation or tumour formation associated with altered expression of JKK-2 in human cells or detecting the levels of JKK-2 in a sample. The present sequence represents a phosphorothicate antisense oligonucleotide for human JKK-2, from the
 Antisense compound specifically hybridizing and inhibiting the expression of human Jun N-terminal kinase kinase-2 is useful for treating infection, inflammation and tumor.
 Human, jun N-terminal kinase kinase-2; JKK-2; modulation; tumour;
antinflammatory; cytostatic; antinfectious; infection; inflammation;
detection; antisense therapy; phosphorothiaote; ss.
 Human; jun N-terminal kinase kinase-2; JKK-2; modulation; tumour; antiinflammatory; cytostatic; antiinfectious; infection; inflammation; detection; antisense therapy; phosphorothiaote; ss.
 Gaps
 Human jun N-terminal kinase kinase-2 antisense oligonucleotide #18
 Human jun N-terminal kinase kinase-2 antisense oligonucleotide #19
 .;
0
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; cive 0; Mismatches 3; Indels
 /*tag= a
/note= "Phosphorothioate linkages"
 Sequence 20 BP; 3 A; 7 C; 7 G; 3 T; 0 U; 0 Other;
 Location/Qualifiers
 Claim 3; Col 40; 31pp; English.
 604 GGGTGGACGTGGCCATCT 621
 1 GGGAGGACGCCGCCATCT 18
 99US-00344001.
 99US-00344001
 AAA29834 standard; DNA; 20
 25-AUG-2000 (first entry)
 15; Conservative
 1. .20
/*tag=
 (ISIS-) ISIS PHARM INC.
 Monia BP, Cowsert LM;
 WPI; 2000-338506/29.
 Local Similarity
 present invention
 modified base
 24-JUN-1999;
 24-JUN-1999;
 Homo sapiens
 Homo sapiens
 US6054440-A.
 AAA29834;
 Query Match
 RESULT 736
 Matches
 AAA29834
g
 SXXXXXXXXXXXXXXX
```

```
The present invention describes an antisense compound (I) of 8-30 nucleobases, specifically hybridishng to, and inhibiting expression of, human jun N-terminal kinase kinase-2 (JKK-2). Also described is a method of inhibiting the expression of human JKK-2 in human cells or tissues, comprising contacting the cells or tissues, with (I), in vitro. (I) has antinferameatory, cytostatic and antinfectious activities. (I) is useful for inhibiting the expression of JKK-2 in human cells or tissues and prevents or delays infection, inflammation or tumour formation associated with altered expression of JKK-2 in human cells or detecting the levels of JKK-2 in a sample. The present sequence represents and phosphorothioate antisense oligonucleotide for human JKK-2, from the
 Antisense compound specifically hybridizing and inhibiting the expression of human Jun N-terminal kinase kinase-2 is useful for treating infection,
 Gaps
 Avian-paramyxovirus; infection; lentogenic; F protein; vaccine; respiratory disease; gastrointestinal disease; poultry pathogen;
 .;
0
 Match 1.6%; Score 13.2; DB 1; Length 20; Local Similarity 83.3%; Pred. No. 5.6e+02; les 15; Conservative 0; Mismatches 3; Indels
 Newcastle disease virus LaSota primer P4618-(LS).
 Sequence 20 BP; 4 A; 7 C; 7 G; 2 T; 0 U; 0 Other;
 Claim 3; Col 40; 31pp; English.
 604 GGGTGGACGTGGCCATCT 621
 3 degaddaccccccccrtcr 20
 99WO-NL000377.
 98EP-00202054.
 AAZ44584 standard; DNA; 20
 respiratory disease; gastro
local immunity; primer; ss.
 07-APR-2000 (first entry)
 Newcastle disease virus.
 inflammation and tumor.
 Cowsert LM;
 WPI; 2000-338506/29.
 present invention
 17-JUN-1999;
 19-JUN-1998;
 WO9966045-A1
 23-DEC-1999.
 Monia BP,
 AAZ44584;
 Query Match
 RESULT 737
 Matches
 AAZ44584
ò
```

ö

ö

Gielkens ALJ

Koch G,

schu568-1.rng

```
This invention describes a novel avian-paramyxovirus cDNA (1) which comprises a nucleic acid sequence corresponding to the 5' terminal end of the generation of an infectious copy of avian-paramyxovirus allowing the generation of an infectious copy of avian-paramyxovirus. The cell line is useful for the production of infectious lentogenic NDV (Newcastle Disease virus) without the addition of exogenous proteolytic activity. Also it is possible to generate a stable transfected cell line that expresses the wild-type F protein in the virus envelope therefore providing infectious particles, useful in the form of a vaccine, especially against respiratory and/or gastrointestinal diseases. NDV can be easily cultured to very high titers in embryonated eggs. Mass culture of embryonated eggs is relatively consorted by mass application methods e.g. drinking water or by spraying or by aerosol formation. The natural route of infection is by the respiratory and/or gastrointestinal tract which are also the major routes of infection of many other poultry pathogens. NDV can induce local immunity despite the presence of circulating material antibody. AZ4461927-Z44609
 paramyxovirus cDNA, useful for production of vaccine against disease virus.
 (DIEN-) STICHTING DIENST LANDBOUWKUNDIG ONDERZOE.
 Disclosure, Page 78; 115pp; English.
 De Leeuw OS,
 LaSota genome
 WPI; 2000-106102/09
 New avian
Newcastle
```

1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ive 0; Mismatches 3; Indels Sequence 20 BP; 6 A; 7 C; 4 G; 3 T; 0 U; 0 Other; 338 GCAACTTGGTGCCAGCGC 355 Conservative Local Similarity 15; Query Match Best Loc Matches

20

3 ccaacreagraccaged

ö

Gaps .. 0

> AAA08026 standard; DNA; 20 19-JUN-2000 AAA08026; RESULT 738 AAA08026

BP.

Human GAPDH antisense PCR primer. (first entry)

Human; interleukin 6; IL-6; IL-11; osteocalcin; calcitonin receptor; osteoprotegerin; osteoclast differentiating factor; OCN; CTR; OPG; ODF; RANK; GAPDH; receptor-activator of NR-KB; skeletal disorder; diagnosis; osteoporosis; osteoarthritis; PCR primer; ss.

WO200013024-A1 sapiens Ношо

09-MAR-2000.

26-AUG-1999;

98AU-00005473 26-AUG-1998;

99WO-AU000697

(MEDV-) MEDVET SCI PTY LTD.

The present sequence is an antisense oligonucleotide directed against the manA encoding the R1 component of mammalian ribonucleotide reductase. Ribonucleotide reductase catalyses the conversion of ribonucleotides to their corresponding deoxyribonucleotides and thus plays an important role in DAN synthesis and cell proliferation. Regulation of ribonucleotide reductase is altered in cultured malignant cells and increased levels of R2 protein and R2 mRNA have been found in pre-malignant and malignant tissues as compared to normal control tissue samples. The present antisense sequence is therefore useful for inhibiting tumourigenicity of neoplastic cells and inhibiting medastasis of tumour cells. It is also

Example 3; Page 30; 137pp; English.

tumor cell growth

Kuliwaba J, findlay D, Fazzalari N, WPI; 2000-256700/22.

Forwood M;

```
.
0
 Diagnosing a skeletal disorder e.g. osteoarthritis or osteoporosis, by measuring level of regulator or marker factors such as specific cytokines or interleukins involved in bone remodeling.
 The present invention describes a method developed for predicting or diagnosing a skeletal disorder (SD) comprising comparing the measured or estimated level of mRNA expression for a regulator or marker of bone remodeling from a body tissue or fluid sample (S) to a standard level. The method is used for diagnosing osteoporosis or osteoarthritis from tissue or fluid samples (containing a cellular component) by assaying for levels of specific markers in vivo and comparing the level to a standard. The method can be carried out on blood or urine samples. The present sequence represents a PCR primer used in an example from the present
 Antisense oligonucleotide, ribonucleotide reductase, R1 protein, R2 protein, tumour cell proliferation inhibition; cancer; cytostatic; ss.
 Gaps
 New antisense oligonucleotide, AS-I-618-20, is useful for inhibiting
 Ribonucleotide reductase R1 message antisense oligo AS-I-348-20.
 .
0
 / Match 1.6%; Score 13.2; DB 1; Length 20; Local Similarity 83.3%; Pred. No. 5.6e+02; les 15; Conservative 0; Mismatches 3; Indels
 Sequence 20 BP; 4 A; 5 C; 7 G; 4 T; 0 U; 0 Other;
 (GENE-) GENESENSE TECHNOLOGIES INC.
 Example 1; Page 30; 43pp; English.
 349 CCAGCGCCAACCTGTCAG 366
 20 ccacreccaacerercae 3
 99US-00249730.
 09-FEB-2000; 2000WO-CA000120
 AAA90770 standard; DNA; 20
 (first entry)
 Wright JA, Young AH;
 WPI; 2000-558216/51
 WO200047733-A1
 20-DEC-2000
 11-FEB-1999;
 17-AUG-2000.
 invention
 Synthetic.
 Query Match
 AAA90770;
 Best Loc
Matches
 RESULT 739
 AAA90770/
8
```

Frr Jul 30 10:32:03 2004

ETTT-1 000 TITE

useful for increasing sensitivity of neoplastic cells to chemotherapeutic drugs, thus allowing chemotherapeutic treatments to be used in patients who have become resistant or less sensitive to chemotherapy. The sequence may be RNA or DNA and may comprise a modified backbone and/or nucleotide analogues 888888

Sequence 20 BP; 7 A; 5 C; 3 G; 5 T; 0 U; 0 Other

Gaps ö 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels Conservative Query Match Best Local Similarity Matches 15; Conserv

ö

816 GGTACTGTGGGTGCTGAA 833 Н GATACTTTGGCTGCTGAA 18

셤 ઠ

AAC93183/c

ВР AAC93183 standard; DNA; 20

AAC93183;

(first entry) 15-FEB-2001 Human STAT3 phosphorothioate antisense oligonucleotide SEQ ID NO:34.

modulation; signal transducer and activator of transcription;
DNA-binding protein; signal transduction; inhibition; apoptosis;
inflammarory disease; acancer; antiinflammatory; antirheumatic;
cytostatic; immunostimulatory; rheumatoid arthritis; leukaemia; myeloma;
melanoma; lymphoma; diagnosis; ss. mouse; STAT3; phosphorothioate; antisense oligonucleotide;

Homo sapiens

WO200061602-A1

19-0CT-2000

06-APR-2000; 2000WO-US009054

08-APR-1999;

(ISIS-) ISIS PHARM INC

Karras JG;

WPI; 2000-619223/59

New antisense compound for inhibiting the expression of signal transducer and activator of transcription 3 (STAT3) in cells or tissues and treating diseases or condition associated with STAT3, such as rheumatoid arthritis and cancer.

Example 2; Page 46; 104pp; English.

The present invention describes an antisense compound (1), 8 to 30 nucleobases in length, that is targeted to a nucleic acid molecule encoding STAT3 (Signal Transducer and Activator of Transcription) and which inhibits the expression of it. (1) has antiinflammatory, antitheumatic, cytostatic and immunostimulatory activities. (1) is used for inhibiting the expression of STAT3 in cells or tissues, treating an antitheumatic condition associated with STAT3 or a human having a disease or condition associated with STAT3 or a human having a disease or condition dasociated with STAT3 or a human having a disease or condition cancer of the breast, prostate, prain, head are rheumaticid arthritis, cancer of the breast, prostate, parsin, head and/or neck, letkaemia, myeloma, melanoma or lymphoma. (1) can also be used for diagnostic methods in detecting and determining the role of STAT3 in various cell functions, physiological processes and conditions associated with expression of STAT3. (1) can be used alone or with other drugs as an immunostimulator. (1) is used in sandwich and colourimetric assays, involving enzyme conjugation

ô and radiolabeling and is used in diagnostic kits. AAC93150 encodes human STAT3 and AAC99231 encodes mouse STAT3 as given in the exemplification of the present invention. AAC93151 to AAC93232 and AAC93232 to AAC93239 represent STAT3 phosphorothicate antisense oligonucleotides, and AAC93300 represents a mismatch control oligonucleotide which are used in example Gaps .; 0 Length 20; Indels Forward primer #85 used for amplification of HLA-A exon 1.6%; Score 13.2; DB 1; 83.3%; Pred. No. 5.6e+02; ative 0; Mismatches 3; Sequence 20 BP; 6 A; 3 C; 2 G; 9 T; 0 U; 0 Other; HLA-A; HLA-B; HLA-C; typing; primer; human; ĸ De Canck I, Rombout A, Rossau 273 TICAGAAAGIIGITGAAA 290 Н BP 05-APR-2000; 2000WO-EP002998. 99EP-00870068. 99US-0138614P. 18 Trcadaacrraargaaa AAC80286 standard; DNA; 20 from the present invention 03-MAY-2001 (first entry) Query Match Best Local Similarity 83.3 Matches 15; Conservative (INNO-) INNOGENETICS NV. WO200061795-A2. Homo sapiens. Synthetic. 09-APR-1999; 11-JUN-1999; 19-OCT-2000 AAC80286; RESULT 74 AAC80286/ 8888888888 à

Locus-specific, separate amplification of exon 2, exon 3, and/or exon 4 of human leukocyte antigen (HLA)-A, HLA-B, or HLA-C alleles using defined primer sets, useful for subtyping or typing of HLA Class I alleles. The present invention relates to a method for the locus-specific, separate amplification of exon 2, exon 3, and/or exon 4 of human leukocyte antigen (HLA) -4, HLA-B, or HLA-C alleles. The method is useful for subtyping or typing of HLA class 1 alleles. The present sequence is an amplification primer used in the method Claim 4; Page 41; 128pp; English.

WPI; 2000-647426/62.

Sequence 20 BP; 1 A; 8 C; 2 G; 8 T; 0 U; 1 Other;

Gaps . 0 ch 1.6%; Score 13.2; DB 1; Length 20; 1 Similarity 75.0%; Pred. No. 5.6e+02; 15; Conservative 1; Mismatches 4; Indels Query Match Best Local Similarity Matches

ö

310 ATGGGAAAGACTGCAGAGAA 329 |||||| |||: ATGGGGAAGRGAGCACAGAA 1 20

> à 셤

RESULT 742 AAF76678/c

8. 18. T.

99US-00418640

15-OCT-1999;

(ISIS-) ISIS PHARM INC.

```
Modulating bone resorption in human or animal for treating osteoporosis or Paget's disease, comprises administering leptin, its derivative, homologue, analog, chemical equivalent, antagonist or agonist.
 modulation; leptin; osteoporosis; Paget's disease;
 Bone resorption modulation method related sequence SEQ ID NO:
 Disclosure; Page 24; 40pp; English
 ВЪ
 99AU-00001999.
 01-AUG-2000; 2000AU-00048971.
AAF76678 standard; DNA; 20
 (first entry)
 osteoclastogenesis; ds
 (UYME) UNIV MELBOURNE
 WPI; 2001-235416/25.
 resorption
 AU200048971-A.
 Nicholson GC;
 03-AUG-1999;
 16-MAY-2001
 08-FEB-2001
 AAF76678
```

; 0 The present invention describes a method of modulating bone resorption comprising administering leptin or a derivative under conditions suitable for the modulation of osteoclastogenesis. This is useful in the treatment of osteoporosis and Paget's disease. No further information about this Gaps ö 1.6%; Score 13.2; DB 1; Length 20; larity 83.3%; Pred. No. 5.6e+02; Conservative 0; Mismatches 3; Indels Sequence 20 BP; 4 A; 5 C; 7 G; 4 T; 0 U; 0 Other; sequence is given in the specification Query Match Best Local Similarity

Human bcl-6 phosphorothioate antisense oligonucleotide, SEQ ID NO:67

Human; bcl-6; transcriptional repressor; germinal centre formation; Th-2 mediated antibody affinity maturation; apoptosis regulator; chromosome 3q27; lymphoma; acute lymphoblastic leukaemia; post-transplant lymphoproliferative disorder; expression inhibition; phosphorothioate; antisense oligonucleotide; ss.

Homo sapiens

US6140125-A.

31-OCT-2000

15-OCT-1999;

99US-00418640.

349 CCAGCGCCAACCTGTCAG 366 15; Matches

20 ccacreccaacerercae 3

AAC81201 standard; DNA; 20 (first entry) 23-FEB-2001 AAC81201; AAC81201 

24-JAN-2000; 2000US-00490692, 24-JAN-2000; 2000US-00490692. (ISIS-) ISIS PHARM INC 30-JAN-2001 

to the human bc1-6 gene, which inhibit its expression. The antisense oligomucleotides were designed to target different regions of the human coligomucleotides were designed to target different regions of the human bc1-6 mRNA, and were analysed for their effect on bc1-6 mRNA levels by quantitative real-time PCR. Bc1-6 (also known as B-cell GLM, lymphoma 6, zinc finger protein 51 and LAZ3) is a sequence-specific DNA-binding transcriptional repressor. The bc1-6 gene is expressed in germinal centre cornective antibody affinity maturation. Bc1-6 may also play a role in the mediated antibody affinity maturation. Bc1-6 may also play a role in the regulation of apportant of approach of translocation events. Such chromosomal translocations can result in aberrant forms of bc1-6, which are strongly implicated in the pathogenesis of several types of lymphoma, and have also been reported in acute lymphoblastic leukaemia and post-transplant lymphopasis, prevention and treatment of conditions associated with aberrant forms of bc1-6, such as lymphomas, and conditions associated with aberrant forms of bc1-6, such as lymphomas, and allocation leukaemia and post-transplant lymphoblastic leukaemia and post-transplant lymphoblastic leukaemia and post-transplant lymphoblastic leukaemia and post-transplant lymphopatoliferative Antisense compounds which specifically hybridize with and inhibit human bcl-6 expression, useful for treating bcl-6 related disorders, and preventing or delaying inflammation or tumor formation. Sequences AAC81144-C81223 represent antisense oligonucleotides Example 15; Col 43-44; 42pp; English. ï. Ľ WPI; 2001-048959/06. Taylor JK, disorders 

Gaps .; 0 Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02; 0; Mismatches 3; Indels Sequence 20 BP; 3 A; 5 C; 6 G; 6 T; 0 U; 0 Other; 0; Mismatches 1.6%; 83.3%; 15; Conservative Query Match Best Local Similarity Matches

; 0

> ઠ D

BP. AAF73035 standard; DNA; 20 RESULT 744 AAF73035/c

Human daxx inhibitory antisense phosphorothioate oligonucleotide SEQ:136 Antisense oligonucleotide; daxx; inhibition; phosphorothioate; Fas binding protein; CENP-C binding protein; dap6; EAP; cytostatic; antiinflammatory; death ascociated protein 6; Ets-1 associated protein; infection; inflammation; temour formation; ss.

(first entry)

24-APR-2001

AAF73035;

US6180353-B1, Homo sapiens

Cowsert LM

```
Antisense; mdm2; hyperproliferation; cancer; psoriasis; ss
 Sequence 20 BP; 4 A; 9 C; 5 G; 2 T; 0 U; 0 Other;
 Human mdm2 phosphorothioate oligonucleotide #99
 Example 9; Col 27; 77pp; English.
 450 GATGCCTTCCAGGAAGAG 467
 Claim 1; Col 47; 59pp; English
 Query Match
Best Local Similarity 83.3
Matches 15; Conservative
 WPI; 2001-217744/22
 20
Dean NM,
ð
 a
```

BP.

m

GATGCCTTCCGGGACGTG

```
ö
 ö
 The present invention relates to an antisense compound 8-30 nucleobases in length targeted to nucleobases 1-308 of the 5' untranslated region, 1776-1806 of the translation termination codon region or 1818-2370 of the 3' untranslated region of a nucleic acid molecule encoding human mdm-2. The invention is useful for reducing hyperproliferation of human cells, modulating the expression of mdm2 in human cells or tissues or in vitro. The hyperproliferative disorder includes cancer or psoriasis
 Novel antisense compound 8-30 nucleobases in length targeted to a nucleic acid molecule encoding human mdm-2 useful for modulating the expression of human mdm-2 and reducing hyperproliferation of human cells.
 or in vitro
 Gaps
 Gaps
 .;
0
 0
modulating the expression of mdm2 in human cells or tissues o
The hyperproliferative disorder includes cancer or psoriasis
 Query Match
1.6%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
 Length 20;
 SS.
 3; Indels
 Antisense; mdm2; hyperproliferation; cancer; psoriasis;
 Cowsert
 Sequence 20 BP; 9 A; 5 C; 2 G; 4 T; 0 U; 0 Other;
 Query Match
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3;
 Sequence 20 BP; 6 A; 5 C; 3 G; 6 T; 0 U; 0 Other;
 Human mdm2 phosphorothioate oligonucleotide #91
 Graham MJ, Monia BP,
 Example 9; Col 27; 77pp; English.
 509
 468 CTCCAGGAACTTGGCATT 485
 BP
 N
 99US-00280805.
 98US-00048810.
 492 GATCTAATTGGAGATTTG
 ||||||
GATCTTCTAGGAGATTTG
 19 chacaddaachredragr
 AAF62865 standard; DNA; 20
 AAF80717 standard; DNA; 20
 ISIS-) ISIS PHARM INC
 Nero P,
 WPI; 2001-190948/19.
 Miraglia LJ,
 26-MAR-1999;
 26-MAR-1998;
 Homo sapiens
 US6184212-B1
 AAF80717;
 Query Match
 RESULT 747
AAF62865/C
ID AAF6
XX
AC
XX
XX
 RESULT 746
AAF80717/C
 ρ
 88866
 à
 g
 The present invention relates to an antisense compound 8-30 nucleobases in length targeted to nucleobases 1-308 of the 5' untranslated region, 1776-1806 of the translation termination codon region or 1818-2370 of the 3' untranslated region of a nucleic acid molecule encoding human mdm-2. The invention is useful for reducing hyperproliferation of human cells,
 Novel antisense compound 8-30 nucleobases in length targeted to a nucleic acid molecule encoding human mdm-2 useful for modulating the expression of human mdm-2 and reducing hyperproliferation of human cells.
 The present invention describes an antisense compound (1) up to 30 nucleobases in length, where (1) inhibits expression of daxx (also known as Fas binding protein, GRNP-C binding protein, dap6 for death associated protein 6 and EAP for Etc. 1 associated protein). (1) has cytostatic and antiinflammatory activity, and can be used in antisense therapy and as a modulator of daxx. (1) is useful for inhibiting the expression of daxx in therapeutics for the treatment of diseases associated with the expression of daxx, prophylaxis e.g. to prevent or delay infection, inflammation or tumour formation and as research reagent. The present sequence represents an inhibitory human daxx antisense phosphorothioate oligonucleotide which is used in the exemplification of the present invention
 ö
 Novel antisense compounds capable of modulating expression of daxx useful for diagnosis, prophylaxis and treatment of diseases associated with expression of daxx.
 Gaps
 ..
0
 1.6%; Score 13.2; DB 1; Length 20;
83.3%; Pred. No. 5.6e+02;
ative 0; Mismatches 3; Indels
```

Cowsert LM

Monia BP,

Nero P, Graham MJ,

99US-00280805. 98US-00048810 Takenishi S;

```
The present invention relates to oligonucleotides based on nucleotide sequences obtained from both wild-type tubercle bacilli (wtTB) that are susceptible to a drug and mutant-type tubercle bacilli (wtTB) that are resistant to a drug. The drugs used in the present invention are rifampion (RFP), streptomycin (SM), kanamycin (KM), isoniazid (IMB) and rifampion (RFP), streptomycin (SM), kanamycin (KM), isoniazid (IMB) and responsible for resistance to SM, the rps gene is responsible for resistance to SM, the inhA gene is responsible for resistance to SM, the inhA gene is responsible for resistance to INH; the katG gene is responsible for resistance to INH; and the embB gene is responsible for resistance to INH; cand the embB gene is responsible for resistance to INH; cand the embB gene is responsible for resistance to INH; cand the embB gene is responsible for resistance of a nucleotide sequence of tubercle bacilli (TB) responsible for drug resistance and primers used to generate the probes. The present sequence is an object of the present invention. The oligonucleotides of the present invention of the determination of infection with tubercle bacilli resistance and the determination of infection with tubercle bacilli
 New oligonucleotides, nucleic acid probes and primers are useful for differentiating drug-resistance and determining infection with tubercle bacilli.
 Sequence 20 BP; 3 A; 5 C; 5 G; 7 T; 0 U; 0 Other;
 Claim 38; Page 52; 114pp; English
 368 AGAGGGTCTGGCCGTCCT 385
 02-AUG-2000; 2000EP-00306563
 99JP-00220357
 AGAGCTTCTTGCCGTACT
 (NISN) NISSHINBO IND INC. (SYST-) SYSTEM RES INC.
 15; Conservative
 Suzuki Y, Nishida M,
 WPI; 2001-246696/26
 Query Match
Best Local Similarity
 simultaneously
 03-AUG-1999;
 Unidentified
 18-SEP-2001
 AAF87054;
 Matches
 RESULT 749
 AAF87054
 ઠે
 ò
 Human, antiinflammatory, cytostatic, antisense gene therapy,
phosphoenol pyruvate carboxykinase-cytosolic, PEPCK-cytosolic, infection,
inflammation, tumour formation, phosphorothioate, ss.
 The present sequence is one of a number of antisense compounds of up to 30 nucleobases in length that are capable of inhibiting the expression of phosphoenol pyruvate carboxykinase-cytosolic (PEPCK-cytosolic). The antisense compounds are useful for inhibiting the expression of PEPCK-cytosolic in cells or tissues. They are commonly used as research creagents and in diagnostics, e.g. to elucidate the function of particular genes. They are also useful for distinguishing between functions of various members of a biological pathway and for research use. The antisense compounds are also useful prophylactically, e.g. to prevent or delay infection, inflammation or tumour formation. The present sequence
 phosphoenol
delaying
 chimeric phosphorothicate oligonucleotide with 2'-MOE wings and a
 0; Gaps
 Tubercle bacillus, drug sensitivity, drug resistance, rifampicin, streptomycin, kanamycin, isoniazid, ethambutol, rpoB gene, rrs gene, rpsL gene, inhA gene, katG gene, embB gene, probe, PCR primer, ss.
 Human PEPCK-cytosolic antisense oligonucleotide ISIS 108033,
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 expression of preventing or
 Sequence 20 BP; 3 A; 5 C; 5 G; 7 T; 0 U; 0 Other;
 Antisense compound capable of modulating the pyruvate carboxykinase-cytosolic, useful for infection, inflammation or tumor formation.
 Cowsert LM;
 Example 15; Col 42; 64pp; English
 213 CAGCCCTCTCCAGAGTG 230
 Wyatt J,
 cascacrcrscasaars 1
 ВР
 21-JAN-2000; 2000US-00488671.
 21-JAN-2000; 2000US-00488671.
 1.6%;
83.3%;
 AAF95128 standard; DNA; 20
(first entry)
 (first entry)
 Query Match
Best Local Similarity 83.3
Matches 15; Conservative
 katG gene PCR primer #6.
 (ISIS-) ISIS PHARM INC
 Butler MM,
 WPI; 2001-190979/19.
 US6187545-B1
 Homo sapiens
 08-MAY-2001
 13-FEB-2001
 23-MAY-2001
 deoxy gap
 Mckay R,
 18
 AAF95128;
```

. 0

Gaps .; 0

1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels

20

```
PCR primer, neuroectoderm cell, cell production, Parkinson's disease, early primitive ectoderm-like cell, EPL cell, cell therapy, transgenic animal, gene therapy, neuronal disease, Huntington's disease, lysosomal storage disease, multiple sclerosis, memory disorder, behavioural disorder; Alzheimer's disease, organ transplant, spinal cord disorder; Pax3; ss.
BP.
 12-JAN-2001; 2001WO-AU000030.
 14-JAN-2000; 2000AU-00005098
AAF87054 standard; DNA; 20
 (first entry)
 PCR primer for Pax3 gene.
 WO200151611-A1
```

Mycobacterium tuberculosis.

748

ઠ

AAF95128 RESULT

EP1076099-A2

14-FEB-2001

```
Assessing risk of endogenous retroviruses in clinical practice and in xenotransplantation, comprises using probe sequences derived from swine or miniature swine retroviral genome.
 Disclosure, Col 79-80; 127pp; English
(GEHO) GEN HOSPITAL CORP
 /mod
 Key
modified_base
 nodified base
 modified base
 Homo sapiens.
Synthetic.
 modified base
 Fishman JA;
 AAS10308;
 7
 Query Match
 Best Loca
Matches
 RESULT 751
 AAS10308
 g
 ò
 This sequence represents a PCR primer for the Pax3 gene, used within the scope of the invention. The invention relates to a method for producing scope of the invention. The invention relates to a method for producing primitive ectoderm-like (EPL) cells and a neural-inducing conditioned primitive ectoderm-like (EPL) cells and a neural-inducing conditioned medium (CM) or extract of it; and (b) contacting the EPL cells with the CM or extract for a time sufficient to generate controlled contaction of interesting the EPL cells with the CM of ferentiation of (I). The cells or partially differentiated progeny are therapy, the screening of pharmaceutical that induce a biological response in neuroectoderm cells or their partially clifferentiation of neural cells. The method is useful for producing centrally differentiated cells. The method is useful for producing neuroectoderm cells. It is also useful for producing centrally differentiated cells from neural ectoderm cells. The method can is also useful for maintaining neuroectoderm cells in vitro in companeous cell populations. It can also be used for producing centerically modified neuroectoderm cells in vitro in contact cells of neuronal diseases, including Parkinson's disease. Huntington's disease, lysosomal storage diseases, multiple sclerosis, memory and behavioural diseases, including Parkinson's disease. Huntington's disease, lysosomal storage diseases, multiple celerosis, cord disorders and Schwarn cells produced by the method are used for the reatment of spinal cord of multiple sclerosis and Schwarn cells produced by the method are used for the reatment of multiple sclerosis.
 ö
 Producing neuroectoderm cells for treatment of Parkinson's and Alzheimer's and for transplantation comprises culturing early primitive ectoderm-like cells in conditioned medium.
 Retrovirus; graft transplantation; xenotransplantation; PCR primer; ss.
 Gaps
 .
0
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ive 0; Mismatches 3; Indels
 Seguence 20 BP; 5 A; 8 C; 4 G; 3 T; 0 U; 0 Other;
 Example 3; Page 42; 91pp; English
 ; 0
 cord disorders and Schwann cells
treatment of multiple sclerosis
 454 CCTTCCAGGAAGAGCTCC 471
 1 cerrecadeadeaderae 18
 96US-00766528
 95US-00572645
 20-APR-2000; 2000AU-00007045.
27-APR-2000; 2000AU-00007143.
 AAF77782 standard; DNA; 20
 23-MAY-2001 (first entry)
 Local Similarity 83.3
es 15; Conservative
 (BRES-) BRESAGEN LTD.
 WPI; 2001-432908/46.
 PCR primer #55.
 13-DEC-1996;
 Unidentified
 14-DEC-1995;
 US6190861-B1
 20-FEB-2001.
 Rathjen PD,
 AAF77782;
 Query Match
 RESULT 750
 Best Loc
Matches
 ##X#X#X#X####X#X#X####X
 à
```

```
ö
The present invention relates to a method for screening a cell or tissue for the presence or expression of a retrovirus (RV), comprising contacting a target mucleic acid from the cell or tissue with a second nucleic acid from the cell or tissue with a second anciet, and to assess graft transplantation 128. Screening of animals allows the elimination of donors with active replication of known viruses. Inactive proviruses can be detected and inactivated, allowing identification and elimination of potential human pathogens derived from swine in a manner not possible in the outbred human organ donor population and is important to the development of human can donor present sequence is a PCR primer used in the
 Gaps
 mod_base= OTHER
note= "Other= All cytisines are 5-methyl cytosines"
 Integrin alpha 4; antisense; very late antigen 4; VLA4; autoimmune disease; inflammatory disease; rheumatoid arthritis; autoling sclerosis; tumour metastesis; melanoma; asthma; psoriasis; allergy; Grave's disease; Hashmoto's thyroiditis; oligonucleotide; systemic lupus erythematosus; allograft rejection; ISIS 107260; ss.
 Antisense oligonucleotide for human integrin alpha 4, ISIS 107260.
 ö
 Length 20;
 3; Indels
 /mod_base= OTHER
/note= "Other= Phosphorothioate backbone"
 'note= "Other= 2' methoxyethoxy residues"
 'note= "Other= 2' deoxy residues"
 Sequence 20 BP; 3 A; 9 C; 1 G; 7 T; 0 U; 0 Other;
 Score 13.2; DB 1;
Pred. No. 5.6e+02;
 0; Mismatches
 Location/Qualifiers
 base= OTHER
 /mod_base= OTHER
 593
 CTGCATCACTTCTCTAC 19
 BP.
 Match 1.6%;
Local Similarity 83.3%;
es 15; Conservative
 576 CTGCCTCACGTGTCTTAC
 AAS10308 standard; DNA; 20
 *tag= b
 O
 ש
 24-OCT-2001 (first entry)
 ď
 /*tag=
 *tag=
```

٠٠,

schu568-1.rng

```
18-OCT-2001
 RESULT 753
 AAF86729/C
ID AAF86'
 ઠે
 g
 The sequence is an antisense oligonucleotide targetting human integrin 4, a protein involved in autoimmune and inflammacry diseases. The invention relates to antisense inhibitors of integrin alpha 4 which target and inhibit expression of integrin alpha 4. The antisense molecules are useful for inhibiting the expression of integrin alpha 4. The antisense molecules are useful for inhibiting the expression of integrin alpha 4. The antisense or condition expression of integrin alpha4, e.g., inflammatory disease or condition, captession of integrin alpha4, e.g., inflammatory disease or condition, autoimmune diseases or condition, satisfaction of integrin alpha4, e.g., inflammatory disease or condition, multiple autoimmune diseases or conditions erythematosus of grave's disease, Hashimoto's thyroiditis, systemic lupus erythematosus and allograft rejection, and diseases or conditions characterised by leukocyte migration into affected tissues, preferably central nervous system tissues. The antisense molecules are also useful for reducing the reducing the adherence of cells of a first type e.g., melanoma cells or lymphocytes, to cells of a second type e.g., melanoma cells or lymphocytes, to cells of a second type e.g., melanoma cells or lymphocytes, to cells of a second type e.g., melanoma cells or lymphocytes, to cells of a second type e.g., melanoma cells or lymphocytes, to cells of a second type e.g., melanoma cells or lymphocytes, to cells of the land
 ö
 Composition for treating inflammatory and autoimmune diseases, comprises antisense compound targeted to nucleic acid molecule encoding integrin alpha4 and inhibit expression of integrin alpha4.
 ymphocytes, to cells of a second type e.g., endothelial cells, by nhibiting integrin alpha4 expression and thus decreasing adhesion of
 Gaps
 ;
0
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ive 0; Mismatches 3; Indels
 "Other= 2' methoxyethoxy residues"
 Sequence 20 BP; 4 A; 4 C; 4 G; 8 T; 0 U; 0 Other;
 Cowsert LM;
 /*tag= e
/mod_base= OTHER
 Claim 12; Col 49; 49pp; English
 524
 BP
 98US-00166203.
 99US-00377309.
 507 TIGGCCAGTITGGCATIT
 1 rrreccaerrrescrar
 PRKAG3 reverse primer hRNR1
 AAH43689 standard; DNA; 20
 (first entry)
 Conservative
 Condon TP,
 /note=
 (ISIS-) ISIS PHARM INC
 WPI; 2001-450381/48.
 Local Similarity
ses 15; Conserv
modified_base
 35-OCT-1998;
 US6258790-B1
 21-JAN-2002
 Bennett CF,
 10-JUL-2001
 AAH43689;
 Query Match
 RESULT 752
 Matches
```

#####**X**#X#X#X#X#X#X####X

Human, AMP-activated protein kinase gamma 3 subunit, PRKAG3; variant, metabolic disease, diabetes, obesity; substitution, PCR, primer; amplify, polymerase chain reaction; ss.

WO200177305-A2.

Synthetic

AAH43689

```
ö
 The sequences given in AAH43686-93 are primers which were used in the amplification and isolation of the full length cDNA encoding the human AMP-activated protein kinase gamma 3 subunit (PRKAG3). Detecting the presence of the PRKAG3 DNA, or a variant, is useful in determining a risk estimate of a metabolic disease, such as diabetes or obesity, in a subject. The variation may occur in exons 3, 4 or 10. In exon 3 variation may be a substitution of a G for a C at nucleotide 320, resulting in the amino acid substitution P71A, in exon 4 variation may be a substitution of a T for a C at nucleotide 1037, resulting in the amino acid substitution ATA was a concluded 1037, resulting in the mathor acid substitution of these may also be nucleotide variation in intron 6. The numbering of these variations is based on the full length cDNA, with a not active that has no position 1 of the open reading frame. This primer sequence
 mSec7; ARF exchange factor; cytosolic adapter protein; guanine nuclectide exchange factor; App ribosylation factor; ARF1; ARF3; ARF6; actin cytoskeleton regulation; expression inhibition; atherosolerosis; allograft rejection; hyperproliferative disorder; cancer; tumour; phosphorothioate; antisense oligonuclectide; ss.
 /mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE
 New variants of human AMP-activated protein kinase gamma3 subunit associated with a metabolic disease e.g. diabetes or obesity and method for determining a risk estimate of diseases in subject by detecting the
 Human cytohesin-2; PSCD2; ARNO for ARF nucleotide binding site opener;
 Gaps
 .
0
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ive 0; Mismatches 3; Indels
 Human cytohesin-2 antisense oligonucleotide, SEQ ID NO:42.
 note= "Phosphorothioate linkages"
 Sequence 20 BP; 3 A; 6 C; 8 G; 3 T; 0 U; 0 Other;
 Marklund S;
 Location/Qualifiers
 Example 1; Page 14; 25pp; English.
 mod base= OTHER
 142 TGGGGGTGCAGCTCCAT 159
 AAF86729 standard; DNA; 20 BP.
06-APR-2001; 2001WO-SE000765.
 07-APR-2000; 2000US-0195665P.
 3 resceserrecascacer
 (first entry)
 ø
 *tag= p
 Query Match 1.6
Best Local Similarity 83.3
Matches 15, Conservative
 Andersson L, Luthman H,
 . .20
*tag=
 binds in intron 4
 (AREX-) AREXIS
 Key
modified_base
 modified base
 Homo sapiens.
 25-JUL-2001
 AAF86729;
```

```
The present invention relates to antisense compounds, 8-30 mucleobases in length targeted to the 5 untranslated region, translation termination codon region, 3 untranslated region, coding region or translation start codon region, 3 untranslated region, coding region or translation start is the of a mucleic acid encoding human mdm2 and for inhibiting the modulates the expression of human mdm2. The antisense oligonucleotides of the invention are useful for encoding human mdm2 and for inhibiting the expression of human mdm2. They may be used for treating an animal having a disease or condition associated with amplification of mdm2 gene or everypression of mdm2 e.g. a hyperproliferative discorder such as cancer (blood, brain, breast, lung, or a soft tissue cancer) and psoriasis, fibrosis, atherosclerosis or restenosis, tumours, colorectal carcinoma and entronic myelogenous leukemia. The antisense compound may be and ministered with a chemotherapeutic agent to overcome drug resistence. The antisense compound, is also useful for detecting the role of mdm2 expression in various cell functions and physiological processes and useful in both clinical research and considered the present the human mdm2 antisense
 An antisense compound, useful for treating e.g. cancer, comprises nucleobases targeted a region (e.g. translation termination codon region) of a nucleic acid encoding human mdm2.
 /mod_base= OTHER
/note= "OTHER= All phosphorothioate linkages,
diditionally bases 1-6 and bases 15-20 are 2'-0-
methoxyethyl bases, and bases 7-14 are deoxynucleotides"
 Query Match
1.6%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
 Graham MJ, Monia BP, Cowsert LM;
 Sequence 20 BP; 6 A; 5 C; 3 G; 6 T; 0 U; 0 Other;
 oligonucleotides of the present invention
 Location/Qualifiers
 Example 9; Page 16; 81pp; English.
 485
 踞
 2-JAN-2001; 2001US-00752983.
 98US-00048810.
 468 CTCCAGGAACTTGGCATT
 CTACAGGAACTTGGTAGT
 AAS29332 standard; DNA; 20
 1.
/*tag=
 Miraglia LJ, Nero P,
 MIRAGLIA L J.
 GRAHAM M J.
 MONIA B P.
COWSERT L M
 WPI; 2001-535565/59
 Key
modified base
 26-MAR-1998;
26-MAR-1999;
 NERO
 21-NOV-2001
 Homo sapiens
 23-AUG-2001.
 AAS29332;
 13
 (MIRA/) N
(NERO/) N
(GRAH/) C
 (/INOM)
 RESULT 755
AAS29332/c
 8 X X X E
ð
 the invention relates to antisense oligonucleotides targetted to the human cytohesin-2 gene, which inhibit its expression. A series of coligonucleotides (AAF866776) were designed to target different coligonucleotides (AAF866776) were designed to target different regions of the human cytohesin-2 KRA, and were analysed for their effect on cytohesin-2 mRNA levels by quantitative real-time PCR. Cytohesin-2 is a meanly monomeric described to their effect of cytoscilic adapter proteins which function as guanine nucleotide exchange factors for ADF ribosylation factors traffic pathways. Cytohesin-2 (also known as PSCD2, ARNO for ARF rucleotide binding site opener, mSc7, and ARF exchange factor) is nucleotide binding site opener, mSc7, and ARF exchange factor) is coalised to the plasma membrane and promotes guanine nucleotide exchange on ARF1, ARF3 and ARF6, the latter of which regulates the assembly of the centin cytoskeleton. Through its interaction with ARF6, and in conjunction with protein kinase C, cytohesin-2 functions as a critical link between cell surface receptors and the actin cytoskeleton. The oligonucleotides confittions associated with cytokesin-2 expression, such as expensed to the place of the invention are useful for diagnosis, prevention and treatment of conditions associated with cytohesin-2 expression, such as atheroscierosis, allograft rejection and hyperproliferative disorders,
 ö
 New antisense compounds modulating expression of human cytchesin-2 useful for diagnosis, prophylaxis and treatment of diseases associated with expression of cytchesin-2, e.g. cancer, atherosclerosis, allograft rejection.
 /*tag= c //mod_base= OTHER //mod_base= OTHER //note= "2'-methoxyethyl (2'-MOE) nucleotides. All 2' MOE cytosines are 5-methylcytosine"
 Gaps
 SS.
 Human; mdm2; hyperproliferative disorder; cancer; psoriasis;
atherosclerosis; tumour; cytostatic; anti psoriatic;
anti arteriosclerotic; vasotropic; antisense; phosphorothioate;
 ö
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 Sequence 20 BP; 1 A; 10 C; 1 G; 8 T; 0 U; 0 Other;
 cytosines are 5-methylcytosine"
16. .20
 Human mdm2 antisense oligonucleotide 31734.
 Claim 3; Page 79; 104pp; English.
 758 GGAGATGGCAGAACTGGA 775
 gdagdgdaagaacrgaa 1
 1.6%;
 20-OCT-2000; 2000WO-US029088
 99US-00428583
 AAS29340 standard; DNA; 20
 21-NOV-2001 (first entry)
 15; Conservative
 Cowsert LM;
 (ISIS-) ISIS PHARM INC.
 WPI; 2001-335680/35.
 Query Match
Best Local Similarity
 WO200130361-A1
 modified base
 27-OCT-1999;
 Bennett CF,
 33-MAY-2001
```

. 0

Gaps .. 0

- 3-4

AAS29340;

AAS29340/

18

g

RESULT 756

```
length targeted to the 5 untranslated region, translation termination codon region, 3 untranslated region, coding region or translation start codon region, 3 untranslated region, coding region or translation start site of a nucleic acid encoding human mdm2, where the anticense compound modulates the expression of human mdm2. The anticense oligonuclectides of the invention are useful for encoding human mdm2 and for inhibiting the expression of thuman mdm2. They must mdm2 and for inhibiting the a disease or condition associated with amplification of mdm2 gene or overexpression of mdm2 e.g. a hyperproliferation of mdm2 gene or overexpression of mdm2 e.g. a hyperproliferative discorder such as cancer (blood, brain, breast, lung, or a soft tissue cancer) and psoriasis, independent encourage of the antisense compound may be administered with a chemocherapeutic agent to overcome drug resistance. The antisense compound reduces hyperproliferation of human cells. The method, which involves the use of the antisense compound, is also useful for detecting the role of mdm2 expression in various cell functions and physiological processes and useful in both clinical research and
 An antisense compound, useful for treating e.g. cancer, comprises nucleobases targeted a region (e.g. translation termination codon region) of a nucleic acid encoding human mdm2.
 The present invention relates to antisense compounds, 8-30 nucleobases in
 1. .20
/*tag= a
/mod_base= CTHER
/mod_base= CTHER
additionally bases 1-6 and bases 15-20 are 2'-0-
methoxyethyl bases, and bases 7-14 are deoxynucleotides"
 diagnostic tools. AAS29242-AAS29507 represent the human mdm2 antisense oligonuclectides of the present invention
 Human, mdm2, hyperproliferative disorder; cancer, psoriasis, atherosclerosis, tumour, cytostatic, anti psoriatic, anti arteriosclerotic, vasotropic, antisense, phosphorothioate, ss.
 1.6%; Score 13.2; DB 1; Length 20;
.larity 83.3%; Pred. No. 5.6e+02;
Conservative 0; Mismatches 3; Indels
 Sequence 20 BP; 9 A; 5 C; 2 G; 4 T; 0 U; 0 Other;
 Human mdm2 antisense oligonucleotide 31730.
 location/Qualifiers
 Graham MJ,
 Example 9; Page 15; 81pp; English.
 32-JAN-2001; 2001US-00752983.
 98US-00048810.
99US-00280805.
 Miraglia LJ, Nero P,
 MIRAGLIA L J.
 COWSERT L M.
 NERO P.
GRAHAM M J.
 WPI; 2001-535565/59.
 MONIA B P.
 US2001016575-A1
 Key
modified_base
 Homo sapiens
 26-MAR-1998;
 26-MAR-1999;
 Query Match
Best Local Simi
Matches 15;
 23-AUG-2001
 MIRA/)
 COWS/)
 GRAH/)
 NERO/)
%XCCCCCCCCCCCCCCXXXXIXXBXBXXBXXBXXBXAIIIIIIIXXBXXBXXBXXBXXBXXBXXBXXBX
```

Cowsert LM;

Monia BP,

```
The invention relates to an antisense compound (ABA83459-ABA83576) which is up to 30 nucleobases in length and that inhibits the expression of MP-(MAP kinase Partner 1) in cells or tissues comprising contacting the cells or tissues in vitro with the antisense compound so that expression of MP-1 is inhibited. The antisense compounds have potential antiling inhibited. The antisense compounds have potential antiling are useful for diagnostics, therapeutics, prophylaxis or as research reagents or kits. The antisense cligonucleotides are useful in gene therapy for treating an animal, particularly a human, suspected of having or being prone to a disease or condition associated with the aving or being prone to a disease or condition associated with the useful for preventing delaying or treating infection, inflammation or tumour formation. The present sequence is that of a human MP-1 antisense cligonucleotide, comprising a chimeric oligonucleotide gapmer 20 nucleotides in length, composed of a central gap region of ten 2'-C deoxynucleotides flanked by five nucleotide 2'-MOE wings
 New antisense oligonucleotides for modulating the expression of MP-1 (MAP kinase partner 1), for preventing, delaying or treating infection, inflammation or tumor formation, especially in humans.
 'note = "phosphorothioate backbone linkage, all cytidine
 Human; mouse; rat; antisense gene therapy; MP-1; MAP kinase Partner 1;
antiinflammatory; cytostatic; antimicrobial; infection; tumour;
phosphorothioate; ss.
 Human MP-1 antisense oligonucleotide SEQ ID NO 37.
 residues are 5-methylcytidines"
 /*tag= c
/mod_base= OTHER
/note= "2'-MOE wings"
 /mod_base= OTHER
/note= "2'-MOE wings"
16. .20
 Example 15; Col 41-42; 47pp; English.
 Location/Qualifiers
 mod_base= OTHER
 Cowsert LM;
 ABA83478 standard; DNA; 20 BP.
 22-NOV-2000; 2000US-00721822.
 22-NOV-2000; 2000US-00721822.
 (first entry)
 æ
 Д
 /*tag=
 (ISIS-) ISIS PHARM INC. (UYVI-) UNIV VIRGINIA.
 Weber MJ, Wyatt J,
 WPI; 2002-040199/05
 Key
modified_base
 modified base
 modified base
 Homo sapiens
 08-FEB-2002
 US6306606-B1
 23-OCT-2001
 Synthetic
 ABA83478;
ABA83478
```

Sequence 20 BP; 10 A; 1 C; 7 G; 2 T; 0 U; 0 Other;

ò

Gaps

. 0

GATCTAATTGGAGATTTG 509 GATCTTCTAGGAGATTTG 3

Similarity

Matches

```
The invention relates to antisense compounds targeted to a nucleic acid molecule encoding a signal transducer and activator of transcription (STAT) protein, specifically STAT3, where the antisense compounds inhibit the expression of STAT3. The antisense sequences are useful for the expression of STAT3 in cells or tissues, inducing Fascon ediated approprise in cells, and sensitising cells to apoptosis. They are also useful for treating an animal having a disease or condition associated with STAT3. These disorders include inflammatory or autoimmune conseast, protated with an animal having a disease or condition conseast, prostate, brain and head and neck and leukaemias, myelomas, conseast, prostate, brain and head and neck and leukaemias, myelomas, and lumphomas. Also treatable are human diseases or conditions caportotic signals. The sequences of the invention can be used in clinical conseast, for detecting and determining the role of STAT3 in various cell functions and physiological processes and for diagnosing conditions associated with the expression of STAT3 . The sequences represent cDNA encoding human STAT3 and human STAT3 oligonucleotides
 STAT3; human; signal transducer and activator of transcription; ss; STAT; antisense gene therapy; Fas-mediated apoptosis; inflammatory disease; autoimmune disease; thermatoid arthritis; cancer; breast; prostate; head; neck; brain; leukaemia; myeloma; malanoma; lymphoma; apoptosis; antiinflammatory; immunosuppressive; antirheumatic; antiarthritic;
 Novel antisense compound useful for treating and diagnosing inflammatory diseases and cancers, is targeted to a nucleic acid molecule encoding signal transducer and activator of transcription proteins.
 Human STAT3 antisense phosphorothioate oligodeoxymucleotide #33.
 1.6%; Score 13.2; DB 1; Length 20; 33.3%; Pred. No. 5.6e+02; ve 0; Mismatches 3; Indels
 Sequence 20 BP; 6 A; 3 C; 2 G; 9 T; 0 U; 0 Other;
 Example 2; Page 13; 21pp; English
 273 TTCAGAAAGTTGTTGAAA 290
 11-JAN-2001; 2001US-00758881.
 08-APR-1999; 99US-00288461.
 83.3%;
 18 ricadaaacrraargaaa
 ABK30532 standard; DNA; 20
 (first entry)
 Query Match
Best Local Similarity 83.3
Matches 15; Conservative
 NPI; 2002-009991/01.
 (KARR/) KARRAS J
 JS2001029250-A1
 Homo sapiens
 11-OCT-2001.
 26-FEB-2002
 cytostatic
 Synthetic.
 ABK30532
 AAS96800;
 RESULT 759
ABK30532
The present invention relates to methods for distinguishing between individuals homozygous for and therefore afflicted with Van Buchem's disease, individuals heterozygous for and therefore carriers of Van Buchem's disease and individuals who are not afflicted with Van Buchems's disease comprise identifying a large genomic deletion in chromosome 17 at 17921. The method is useful for identifying individuals who are afflicted with or carriers of diseases associated with one or more genomic deletion, particularly Van Buchem's disease, which is a rare autosomal recessive disorder that results in a bone dysplasia referred to a craniotubular hypertosis. The present sequence is a PCR primer used to amplify 92Kb gene fragment in human chromosome 17 at 17921
 ô
 ö
 Methods for identifying subjects who are afflicted with or carriers of diseases associated with genomic deletion(s), e.g. Van Buchem's disease, by determining the presence of a deletion in the 92 kb region of human chromosome 17 at 17q21.
 Human, Van Buchem's disease; genomic deletion; cranictubular hypertosis; autosomal recessive disorder; chromosome 17; chromosome 17q21; bone dysplasia; 92Kb gene fragment; PCR primer; ss.
 Gaps
 Gaps
 Human chromosome 17 92Kb gene fragment amplifying PCR primer, 12706.
 .
0
 ö
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02;
 3; Indels
Local Similarity 83.3%; Pred. No. 5.6e+02; nes 15; Conservative 0; Mismatches 3; Indels
 Sequence 20 BP; 6 A; 4 C; 7 G; 3 T; 0 U; 0 Other;
 0; Mismatches
 Example 3; Page 26; 109pp; English.
 545
 Paeper B;
 764 GGCAGAACTGGAGAAGAA 781
 2 GGCAAAAGTGGATAAGAA 19
 AGTCAAGGCCTTCTGCTC 1
 (CELL-) CELLTECH R & D INC. (STRA/) STRAEHLING HAMPTON K.
 28-JUL-2000; 2000US-0221855P.
06-JUL-2001; 2001US-0303386P.
 30-JUL-2001; 2001WO-US023968
 528 AGTCAACGCCCTCTTCTC
 RESULT 758
AAS96800/c
ID AAS96800 standard; DNA; 20
 AAD31444 standard; DNA; 20
 31-MAY-2002 (first entry)
 15; Conservative
 Brunkow ME, Proll S,
 WPI; 2002-227089/28.
 Query Match
Best Local Similarity
 WO200210455-A2
 Homo sapiens
 07-FEB-2002
 18
 AAD31444;
```

; 0

.; 0

BP.

Matches

schu568-1.rng

```
The invention relates to a novel compound 8-50 nucleotides in length targeted to a nucleic acid molecule encoding a protein phosphatase 2 catalytic beta subunit, where the compound specifically hybridises with and inhibits the expression of protein phosphatase 2 catalytic beta subunits, or specifically hybridises with at least an 8-nucleotide posphatase 2 catalytic beta subunits, or specifically hybridises with at least an 8-nucleotide of protein phosphatase 2 catalytic beta subunits. The antisense compounds are useful for modulating the expression of protein phosphatase 2 catalytic beta subunits and for treating diseases or conditions associated with expression of protein phosphatase 2 catalytic beta subunits and for treating diseases or conditions associated with a berrant insulin regulation or diabetes or a hyperproliferative disorder, particularly cancer. The antisense compounds are also useful for diapensely therapeutics, prophylaxis, e.g. operwint or delay infection, inflammation or tumour formation, as research reagents and kits, and in distinguishing between functions of various members of a biological pathway. This polymucleotide sequence represents an oligonucleotide inhibitor of human protein phosphatase 2 catalytic beta subunit mRNA levels of the invention. NOTE: This oligonucleotide contains phosphorothioate residues and has 2'- MOE wings with a deoxy gap
 New antisense oligonucleotides targeted to nucleic acid encoding Protein Phosphatase 2 catalytic subunit beta, useful for treating diseases related to Protein Phosphatase 2 catalytic subunit beta expression, such
 Sequence 20 BP; 6 A; 5 C; 5 G; 4 T; 0 U; 0 Other;
 Claim 3; Page 95; 137pp; English.
 790 GCAAACTGCAGGACTGAC 807
 19
 09-FEB-2001; 2001US-00780045.
 ABS73905 standard; DNA; 20 BP.
 31-JAN-2002; 2002WO-US002805
 2 gcaaacrerragacreac
 06-DEC-2002 (first entry)
 (ISIS-) ISIS PHARM INC
 Wyatt JR;
 WPI; 2002-657588/70.
 cytostatic; ss
 22-AUG-2002.
 as cancer.
 Monia BP,
 Query Match
 ABS73905;
 RESULT 761
 4BS73905
 à
 The present invention relates to antisense compounds and methods for modulating the expression of human glioma-associated oncogene-1. The antisense compounds, particularly antisense oligomucleotides, target and inhibit the expression of human glioma-associated oncogene-1. The antisense compounds are useful for inhibiting the expression of human glioma-associated oncogene-1 in human cells or tissues and for treating an animal, particularly a human suspected of having or being prone to disease or condition associated with expression of glioma-associated oncogene. The compounds are useful for diagnostics, therapeutics and as research reagent, e.g. prophylactically to prevent or delay infection, inflammation or tumour formation. The antisense compounds are safely and effection, inflammation or tumour formation. Abx33509,ABX30586 represent the
 ö
 Human glioma-associated oncogene-1 antisense oligonucleotide ISIS 124864
 Human; glioma-associated oncogene-1 associated disease; infection;
inflammation; tumour formation; cytostatic; antiinflammatory; antisense;
 Novel antisense compounds targeted to nucleic acids encoding gliomasssociated oncogene-1, for modulating the gene expression and treating diseases associated with expression of the oncogene in humans.
 Gaps
 ò
 antisense oligonucleotides of the invention which comprise a
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels
 Human protein phosphatase 2 oligo inhibitor SEQ ID No 72.
 Sequence 20 BP; 2 A; 8 C; 4 G; 6 T; 0 U; 0 Other;
 Claim 1; Col 45-46; 43pp; English.
 632 TCAGTCCCGCTCCCTGCA 649
 18
 ABT07458 standard; DNA; 20 BP.
 38-SEP-2000; 2000US-00657042.
 38-SEP-2000; 2000US-00657042.
 1 readrecrececereca
(first entry)
 (first entry)
 phosphorothicate backbone
 Local Similarity 83.3
les 15; Conservative
 (ISIS-) ISIS PHARM INC
 Wyatt J;
 phosphorothioate, ss
 WPI; 2002-138363/18.
 JS6329203-B1.
23-APR-2002
 11-DEC-2001
 Bennett CF,
 14-NOV-2002
 Query Match
 ABT07458;
```

```
ö
 Human; antisense; cytohesin-1; guanine nucleotide exchange protein; ARF; ADP ribosylation factor; inflammation; antiinflammatory; tumour;
 Human cytohesin-1 coding region antisense oligonucleotide, ISIS#110998.
 Gaps
 ..
0
Match 1.6%; Score 13.2; DB 1; Length 20; Local Similarity 83.3%; Pred. No. 5.6e+02; les 15; Conservative 0; Mismatches 3; Indels
 30-OCT-2001; 2001WO-US047583.
 WO200268584-A2.
 Homo sapiens.
 06-SEP-2002
```

Cytostatic, antidiabetic, antisense therapy, aberrant insulin regulation, protein phosphatase 2 catalytic beta subunit, antisense compound, cancer, hyperproliferative disorder; diabetes; inflammation; tumour; human; ds.

WO200264737-A2

Homo sapiens

RESULT 760

Matches

à

```
New antisense oligonuclectide encoding human cytohesin-1, useful for preventing or treating a disease or condition associated with cytohesin-1 expression e.g. tumor or inflammation.
 The invention relates to a new antisense compound, comprising 8-30 nucleobases targeted to a nucleic acid molecule encoding human cytohesinglically hybridises with, and inhibits the expression of, human cytohesin-1, a guanine nucleotide exchange protein for ARF (ADP ribosylation factor). The antisense compound may be used in a pharmaceutical composition for inhibiting the expression of cytohesin-1 in human cells or tissues, and in treating a disease or condition associated with cytohesin-1 by administering to the human the antisense compound e.g. tumour or inflammation. The antisense compound is also useful for diagnostics, therapeutics, prophylaxis and as research reagents and kits. The present sequence is an antisense oligonucleotide
 New antisense oligonuclectide encoding human cytohesin-1, useful for preventing or treating a disease or condition associated with cytohesin-1 expression e.g. tumor or inflammation.
 Human, antisense, cytohesin-1; guanine nucleotide exchange protein; ARF; ADF ribosylation factor; inflammation; antiinflammatory; tumour;
 Human cytohesin-1 3' UTR antisense oligonucleotide, ISIS#111038
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 Cowsert LM;
 Sequence 20 BP; 7 A; 7 C; 3 G; 3 T; 0 U; 0 Other;
 Cowsert
 Bennett CF, Rothlein R, Kishimoto TK,
 Kishimoto TK,
 (ISIS-) ISIS PHARM INC.
(BOEH) BOEHRINGER INGELHEIM PHARM INC.
 (ISIS-) ISIS PHARM INC.
(BOEH) BOEHRINGER INGELHEIM PHARM INC
 Example 15; Page 80; 107pp; English
 149 TGCAGCTCCATACTTGCA 166
 recaectecacaareca 20
 Query Match
Best Local Similarity 83.3%;
Matches 15, Conservative C
 30-OCT-2001; 2001WO-US047583
 22-FEB-2001; 2001US-00791243
22-FEB-2001; 2001US-00791243.
 targeting human cytohesin-1
 ABS73945 standard; DNA; 20
 (first entry)
 Bennett CF, Rothlein R,
 WPI; 2002-723198/78.
 WPI; 2002-723198/78.
 WO200268584-A2.
 cytostatic; ss
 06-DEC-2002
 Homo sapiens.
 06-SEP-2002.
 ABS73945
 #X##X#X#####X#X####
 ò
 a
```

```
The present invention describes a method of arraying genome clones. The method comprises: (a) clones of the genomic libraries contained in method comprises: (a) clones of the genomic libraries contained in multiwell plates numbered for discrimination are mixed in each of the multiwell plates; (b) a primer designed based on the chromosome marker sequence is added to the mixture to carry out an amplification reaction; (c) a signal corresponding to the marker is detected from the resultant plates containing the clones having said marker sequence; (d) the order plates containing the clones having said marker sequence; (d) the order containing the clones having said marker sequence; (d) the order che maximum in the specified discrimination Nos. to array the multiwell plates; (e) the clones in the multiwell plates of the specified discrimination of a maximum in the multiwell plates of the specified discrimination of the marked respectively in each wells of longitudinal discrimination Nos. are mixed respectively in each wells of longitudinal cand lateral directions; (f) the mixed clones are cultured and the resultant cultures are amplified by using the above primer; (g) signals
 ö
 cytohesin
 Human; chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
PCR primer; ss.
 The invention relates to a new antisense compound, comprising 8-30 nucleobases targeted to a nucleic acid molecule encoding human cytohesin.

Ly specifically hybridises with, and inhibits the expression of, human cytohesin-1, a guanine nucleotide exchange protein for ARF (ADF ribosylation factor). The antisense compound may be used in a pharmaceutical composition for inhibiting the expression of cytohesin-1 in human cells or tissues, and in treating a disease or condition associated with cytohesin-1 by administering to the human the antisense compound e.g. thumour or inflammation. The antisense compound is also useful for diagnostics, therapeutics, prophylaxis and as research reagents and kits. The present sequence is an antisense oligonucleotide targeting human cytohesin-1
 Gaps
 ò
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels
 Human chromosome 1p36-35 PCR primer SEQ ID NO:1552.
 Sequence 20 BP; 4 A; 9 C; 5 G; 2 T; 0 U; 0 Other;
 Example 15; Page 81; 107pp; English.
 Claim 4; Page 35; 528pp; Japanese.
 614 GGCCATCTCAACCAGGG 631
 1 GGCCAGCTCACACAGGGC 18
 ABL44508 standard; DNA; 20 BP.
 12-MAR-2001; 2001JP-00068285.
 10-MAR-2000; 2000JP-00066716.
 (RIKA) RIKAGAKU KENKYUSHO.
(GENO-) GENOTEX YG.
 (first entry)
 Best Local Similarity 83.3
Matches 15; Conservative
 Arraying genome clones.
 WPI; 2002-144136/19.
 JP2001321190-A.
 Homo sapiens.
 11-APR-2002
 20-NOV-2001.
 ABL44508;
 Query Match
 RESULT 763
 ઠ
 g
```

ö

Gaps

.. 0

```
are detected from the amplified products; (h) the clones in the multiwell plates are specified from the detected result; and (i) the clones are reconstituted as the positions on the chromosome and arrayed. The microarray is useful for gene analysis. ABL42957 to ABL45322 represent FCK primers for human chromosome 1936-35 DNA, and ABL45323 to ABL45634 represent PCK primers for human chromosome 21422.1, which are specifically claimed for use in the present invention
 Gaps
 ö
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
 3; Indels
 Sequence 20 BP; 5 A; 2 C; 7 G; 6 T; 0 U; 0 Other;
 0; Mismatches
 Query Match
Best Local Similarity 83.3%;
Matches 15; Conservative
 888888888888
```

ö

ABL43605 standard; DNA; 20 RESULT 764

BP

ABL43605;

(first entry) 11-APR-2002

Human chromosome 1p36-35 PCR primer SEQ ID NO:649.

Human; chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome; PCR primer; ss.

Homo sapiens.

JP2001321190-A.

20-NOV-2001

12-MAR-2001; 2001JP-00068285.

10-MAR-2000; 2000JP-00066716.

(RIKA ) RIKAGAKU KENKYUSHO. (GENO-) GENOTEX YG.

WPI; 2002-144136/19

Arraying genome clones.

Claim 4; Page 17; 528pp; Japanese.

The present invention describes a method of arraying genome clones. The method comprises: (a) clones of the genomic libraries contained in multiwell plates numbered for discrimination are mixed in each of the multiwell plates; (b) a primer designed based on the chromosome marker sequence is added to the mixture to carry out an amplification reaction; (c) a signal corresponding to the marker is detected from the resultant amplified product to specify the discrimination Nos. of the multiwell plates containing the clones having said marker sequence; (d) the order of the markers is changed so that the same discrimination Nos. succeed to the maximum in the specified discrimination Nos. to array the multiwell plates; (e) the clones in the miltiwell plates of the specified discrimination Nos are mixed respectively in each wells of longitudinal cresultant cultures are amplified products; (h) the clones in the multiwell plates are specified from the detected result; and (i) the clones are reconstituted as the positions on the chromosome and arrayed. The microarray is useful for gene analysis. ABL42957 to ABL45322 represent correspondent of the man chromosome ligids. Jut which are sepecifically claimers for human chromosome 21q221, which are specifically claimers for human chromosome 21q221, which are specifically claimers for human chromosome 21q221, which are ABL43605/ XX AGL43605/ XX ABL43 XX BHMmax XX Humax XX Humax XX Humax XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Homo XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can XX Can

```
The present invention describes a method of arraying genome clones. The method comprises: (a) clones of the genomic libraries contained in method comprises: (b) clones of the genomic libraries contained in multiwell plates in a perimer designed based on the chromosome marker sequence is added to the mixture to carry out an amplification reaction; (c) a signal corresponding to the marker is detected from the resultant plates containing the clones having said marker sequence; (d) the order of the markers is changed so that the same discrimination Nos. succeed to plates; (e) the clones in the multiwell plates of the specified clored in the multiwell plates of the specified discrimination Nos. to array the multiwell plates; (e) the clones in the mixed clones of the specified clones are mixed respectively in each wells of longitudinal creation Nos. are mixed respectively in each wells of longitudinal are are specified from the discrimination of the clones in the mitiwell plates are specified from the detected result, and (i) the clones are reconstituted as the positions on the chromosome and arrayed. The microarray is useful for gene analysis. ABL42957 to ABL45322 represent PCR primers for human chromosome 21q22.1, which are represent represent present invention invention
 ö
 chromosome 1p36-35; chromosome 21q22.1; genetic analysis; genome;
 Gaps
 .,
 Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02;
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels
 Indels
 Human chromosome 1p36-35 PCR primer SEQ ID NO:1517.
Sequence 20 BP; 4 A; 7 C; 4 G; 5 T; 0 U; 0 Other;
 Sequence 20 BP; 4 A; 3 C; 8 G; 5 T; 0 U; 0 Other;
 0; Mismatches
 Claim 4; Page 34; 528pp; Japanese.
 189 GGCCGGGTCAGTTTCCTG 206
 ABL44473 standard; DNA; 20 BP.
 1.6%;
ilarity 83.3%;
Conservative (
 10-MAR-2000; 2000JP-00066716.
 12-MAR-2001; 2001JP-00068285
 GGCAGGGTCAGATTCCAG
 (RIKA) RIKAGAKU KENKYUSHO.
 (first entry)
 Query Match
Best Local Similarity 83.3
Matches 15, Conservative
 Arraying genome clones.
 WPI; 2002-144136/19.
 Query Match
Best Local Similarity
 (GENO-) GENOTEX YG.
 PCR primer; ss.
 JP2001321190-A.
 Homo sapiens.
 15;
 11-APR-2002
 20-NOV-2001
 ABL44473;
 RESULT 765
 Matches
 ABL44473
 ò
 d
```

ò

. 0

Gaps

. 0

70.77

כ

5

מכדדה

a central gap region consisting of ten 2'-deoxymucleotides, which are flanked on both sides (5' and 3' directions) by five- nucleotide wings. The wings are composed of 2'-nethoxyethyl (2'-MOE) nucleotides. The internucleoside (backbone) linkages are phosphorothioate (P=S) throughout the oligonucleotide and all cytidine residues are 5-methylcytidines. The present sequence represents a damage-specific DNA binding protein 1, p127 antisense oligonucleotide of the invention

#1.

```
Human damage specific DNA binding protein 1 antisense oligonucleotide
 Antisense; cytostatic; hepatotrophic; antiinflammatory; virucide; Damage-specific DNA-binding protein 1; p127; cancer; human; ss; hyperproliferative disorder; haematopoietic cancer; hepatitis.
 /*tag= d
/mod_base= OTHER
/note= "OTHER= 2'-0-methoxyethyl nucleotide"
 /mod_base= m5c
/note= "All cytosines are 5-methyl cytosine"
 /mod_base= OTHER
/note= "OTHER= 2'-O-methoxyethyl nucleotide"
16. .20
 /mod_base= OTHER
/note= "OTHER= phosphorothioate backbone"
 Location/Qualifiers
 04-DEC-2001; 2001WO-US046485.
 06-DEC-2000; 2000US-00731457,
 ABS59709 standard; DNA; 20
 1. .20
/*tag= c
 Q
 Ø
 /*tag=
 . 20
 (ISIS-) ISIS PHARM INC
 Popoff I, Wyatt JR;
 WPI; 2002-599454/64.
 WO200246206-A1
 modified_base
 modified base
 modified base
 modified base
 Homo sapiens
 05-NOV-2002
 13-JUN-2002
 Synthetic.
 ABS59709
RESULT 766
```

Novel antisense compound targeted to nucleic acid molecule encoding Damage-specific DNA-binding protein 1, p127, useful for treating animal having disease associated with the protein such as liver cancer, or hepatitis

Page 89; Claim 3; 121pp; English.

This invention relates to a novel antisense compound 8 to 50 nucleobases in length targeted to nucleic acid molecule encoding Damage-specific DNA-binding protein 1, p127 where the artisense compound specifically hybridises with and inhibite expression of the damage specific DNA binding protein 1 gene. The compounds of the invention may be used in antisense therapy as an inhibitor of expression of Damage-specific DNA binding protein 1, p127. The antisense compounds of the invention are useful for inhibiting the expression of damage specific DNA binding protein 1, p127 in cells or tissues and are also useful for treating an animal having a disease or condition associated with expression of p127, such as a hyperproliferative disorder (e.g., cancer such as breast, skin, liver, or haematopoletic cancer), or hepatitis, by inhibiting the expression of p127. All antisense oligonucleotides of the invention are chimeric oligonucleotides (gapmers) 20 nucleotides in length, composed of

The present invention relates to new NOVX polypeptides. The NOVX polypeptide, nucleic acid and antibody are useful for treating or

```
ö
 Human; NOVX; pathological condition; NOVX-associated disorder; diabetes; Von Hippel-Lindau syndrome; cirrhosis; transplantation disorder; obesity; pancreatitis, autoimmune disease; renal artery stenosis; infertility; intertitial nephritis; glowerino-popuritis; polycystic kidney disease; systemic lupus erythematosus; SLB; carract; Alzheimer's disease; acoustic trauma; cancer; cardiomyopathy; atherosclerosis; hypertension; congenital heart defect; scleroderma; endometriosis; hemophilia; dementia; stroke; Parkinson's disease; Huntington's disease; epilepsy; multiple sclerosis; anxiety; pain; leukaemia; hypothyroidism; psoriasis; acne; wound; asthma; PCR; primer; ss.
 Malyankar UM, Shenoy SG, Spytek KA, Zerhusen BD, Patturajan M;
Guo X, Kekuda R, Gangolli EA, Shimkets RA, Taupier RJ, Li L;
 New isolated NOVX polypeptides and nucleic acid molecules useful treating, preventing, diagnosing and researching of pathological conditions in humans with a NOVX-associated disorders.
 Query Match 1.6%; Score 13.2; DB 1; Length 20; Best Local Similarity 83.3%; Pred. No. 5.6e+02; Matches 15; Conservative 0; Mismatches 3; Indels
 Sequence 20 BP; 8 A; 4 C; 7 G; 1 T; 0 U; 0 Other;
 Example 2; Page 239; 295pp; English.
 Human forward PCR primer Ag3090.
 909 AAGTGAAAAGACAGCGGG 926
 19
 13-NOV-2000; 2000US-0248153P.
17-NOV-2000; 2000US-0249598P.
02-FBB-2001; 2001US-0264240P.
16-FBB-2001; 2001US-0265127P.
16-UUL-2001; 2001US-0304348P.
31-UUL-2001; 2001US-0309281P.
 BP
 13-NOV-2001; 2001WO-US048732.
 2 AAGCGAAAAGACAGGTGG
 ABS71757 standard; DNA; 20
 (first entry)
 (CURA-) CURAGEN CORP.
 WPI; 2002-706943/76.
 MO200266643-A2.
 02-DEC-2002
 Homo sapiens
 29-AUG-2002.
 Padigaru M;
 ABS71757;
 RESULT 767
 ABS71757
ID ABS7
 q
88888888888
 ò
```

```
disorder, e.g. Yon Hippel-Lindau syndrome, cirrhosis, transplantation disorder, pancreatitis, obesity, diabetes, autoimmune disease, renal disorders, pancreatitis, obesity, diabetes, autoimmune disease, renal artery stenosis, interstitial nephritis, gollowstif, Alzheimer's disease, soutskie tramam, cancer, infertility, cardiomypathises, atherosclerosis, haemophilia, dementia, stroke, Parkinson's disease, endometriosis, haemophilia, dementia, stroke, Parkinson's disease, endometriosis, multiple sclerosis, anxiety, pain, leukaemias, hypothyroidism, psoriasis, acne, wounds and asthma. They are also useful for the manufacture of a medicament for treating a syndrome also useful for the useful in therapeutic applications including protein therapeutic, small molecule drug target, antibody target, diagnostic and control of the present nucleic acid sequence represents a PCR primer regeneration. The present nucleic acid sequence represents a PCR primer that was used in the methods of the invention for amplification of human
 ô
 Human, NOVX, pathological condition, NOVX-associated disorder, diabetes; Von Hippel-Lindau syndrome; cirrhosis; transplantation disorder; obesity; parcreatitis; autoimmune disease; renal artery stenosis; infertility; interstitial nephritis; glomerulonephritis; polycystic kidney disease; systemic lupus erythematosus; SLB; catarat; Alzheimer's disease; soustic trauma; cancer; cardiomyopathy; atherosolerosis; hypertension; congenital heart defect; scleroderma, endometriosis; haemophilia; dementia; stroke; Parkinson's disease; Huntington's disease; epilepsy;
 multiple sclerosis; anxiety; pain; leukaemia; hypothyroidism; psoriasis; acne; wound; asthma; PCR; primer; ss.
 Gaps
preventing a pathological condition in humans with a NOVX-associated
 Malyankar UM, Shenoy SG, Spytek KA, Zerhusen BD, Patturajan M;
Guo X, Kekuda R, Gangolli EA, Shimkets RA, Taupier RJ, Li L;
 ö
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 Sequence 20 BP; 6 A; 5 C; 6 G; 3 T; 0 U; 0 Other;
 Human forward PCR primer Ag3092.
 314 GAAAGACTGCAGAGAAGC 331
 13-NOV-2000; 2000US-0248153P.

17-NOV-2000; 2000US-0249598P.

26-JAN-2001; 2001US-026424P.

02-FEB-2001; 2001US-0265127P.

16-PEB-2001; 2001US-0269562P.

10-JUL-2001; 2001US-0304348P.

31-JUL-2001; 2001US-0309261P.

17-AUG-2001; 2001US-0313283P.
 3 GACAGACTGCTGAGCAGC 20
 ABS71760 standard; DNA; 20 BP
 1.6%;
 13-NOV-2001; 2001WO-US048732.
 (first entry)
 Query Match
Best Local Similarity 83.33
Matches 15, Conservative
 (CURA-) CURAGEN CORP.
 WO200266643-A2
 Homo sapiens.
 02-DEC-2002
 29-AUG-2002.
 Guo'X, Kek
Padigaru M;
 ABS71760;
à
```

```
The present invention relates to new NOVX polypeptides. The NOVX polypeptide, nucleic acid and antibody are useful for treating or preventing a pathological condition in humans with a NOVX-associated disorder, e.g. von Hippel-Lindau syndrome, cirrhosis, transplantation disorders, pancreatitis, obesity, diabetes, autoimmune disease, renal artery stenosis, interstitial nephritis, glomerulomephritis, polycystic kidney disease, systemic lupus erythematosus (SLE), cataract, Alzheimer's disease, acoustic trauma, cancer, infertility, cardiomyopathies, atherosclerosis, hapenophila, demential, stroke, Parkinson's disease, Huntington's disease, epilepsy, multiple sclerosis, anxiety, pain, leukaemias, hypothyroidism, psoriasis, acne, wounds and asthma. They are also useful for the manufacture of a medicament for treating a syndrome associated with a human disease, specifically a NOVX-associated disorder. They may also be useful in therapeutic applications including protein therapeutic, small molecule drug target, antibody target, diagnostic and/or prognostic marker, gene therapy, research tools and tissue regeneration. The present nucleic acid sequence represents a PCR primer way.
 ö
 Human; NOVX; pathological condition; NOVX-associated disorder; diabetes; Von Hippel-Lindau syndrome; cirrhosis; transplanteation disorder; obesity; pancreatitis; autoimmune disease; renal artery stenosis; infertility; interstitial nephritis; glomerulonephritis; polycystic kidney disease; systemic lupus erythematosus; SIE; cateract; Albheimer's disease; congentic trauma; cancer; cardiomyopathy; atherosclerosis; hypertension; congenital heart defect; scleroderma; endometriosis; hypertension; dementia; stroke; parkinson's disease; Huntington's disease; epilepsy; multiple sclerosis; anxiety; pain; leukaemia; hypothyroidism; psoriasis; acces, wound; asthma; PCR; primer; ss.
 0; Gaps
 New isolated NOVX polypeptides and nucleic acid molecules useful treating, preventing, diagnosing and researching of pathological conditions in humans with a NOVX-associated disorders.
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 Sequence 20 BP; 6 A; S C; 6 G; 3 T; 0 U; 0 Other;
 Example 2; Page 239; 295pp; English.
 Human reverse PCR primer Ag2233.
 314 GAAAGACTGCAGAGAAGC 331
 3 cacacacrecreacedec 20
 BP.
 1.6%;
 13-NOV-2000; 2000US-0248153P.
17-NOV-2000; 2000US-0249598P.
26-JAN-2001; 2001US-0264240P.
 13-NOV-2001; 2001WO-US048732.
 ABS71738 standard; DNA; 20
 (first entry)
 Query Match
Best Local Similarity 83.3
Matches 15; Conservative
 WPI; 2002-706943/76.
 WO200266643-A2.
 Homo sapiens
 02-DEC-2002
 29-AUG-2002.
 ABS71738;
 RESULT 769
à
 d
```

```
The present invention relates to new NOVX polypeptides. The NOVX polypeptide, nucleic acid and antibody are useful for treating or preventing a pathological condition in humans with a NOVX associated disorder, e.g. Von Hippel-Lindau syndrome, cirrhosis, transplantation disorders, pancreatitis, obesity, diabetes, autoimmune disease, renal arcery stenosis, interstitial nephritis, glomerulonephritis, polycystic kidney disease, systemic lupus erythematosus (SLE), cataract, Alzheimer's disease, acoustic trauma, cancer, infertility, cardiomyopathies, atherosclerosis, haemophilia, dementia, stroke, Parkinson's disease, funtington's disease, epilepsy, multiple sclerosis, anxiety, pain, leukaemias, hypothyroidism, psoriasis, acne, wounds and asthma. They are also useful for the manufacture of a medicament for treating a syndrome associated with a human disease, specifically a NOVX-associated disorder. They may also be useful in therapeutic applications including protein therapeutic, small molecule drug target, antibody target, diagnostic and/or prognostic marker, gene therapy, research tools and tissue regeneration. The present nucleic acid sequence represents a PCR primer that was used in the methods of the invention for amplification of human
 New isolated NOVX polypeptides and nucleic acid molecules useful for treating, preventing, diagnosing and researching of pathological conditions in humans with a NOVX-associated disorders.
 Example 2; Page 206; 295pp; English.
 Gangolli EA,
02-FEB-2001; 2001US-0266127P.
16-FEB-2001; 2001US-0269562P.
10-UUL-2001; 2001US-0304348P.
31-UUL-2001; 2001US-0303521P.
17-AUG-2001; 2001US-0313283P.
 ar UM, Shenoy SG,
Kekuda R, Gangol
 CURA-) CURAGEN CORP.
 WPI; 2002-706943/76.
 Malyankar UM,
 Padigaru M;
```

Sequence 20 BP; 3 A; 5 C; 4 G; 8 T; 0 U; 0 Other;

Query Match 1.6%; Score 13.2; DB 1; Length 20; Best Local Similarity 83.3%; Pred. No. 5.6e+02; Matches 15; Conservative 0; Mismatches 3; Indels 661 TCATGCAGCTGAAGCTCA 678 ò

TCATGCAGCTTTTGCTCA 19 g

ABL53058 standard; DNA; 20 29-AUG-2003 29-MAY-2002 ABL53058; 

BP

(revised)
(first entry) Oligonucleotide JCA 343

Foot-and-mouth disease virus.

Virucide, vaccine, foot and mouth disease, Pl region, capsid, 3C protease, ds.

WO200200251-A1.

03-JAN-2002

27-JUN-2001; 2001WO-FR002042

29-JUN-2000; 2000FR-00008437

(MERI-) MERIAL

Lombard M; Audonnet J, Burman King A,

WPI; 2002-130837/17

Spytek KA, Zerhusen BD, Patturajan . EA, Shimkets RA, Taupier RJ, Li L

foot-and-mouth disease, Stable, potent effective vaccines against foot-and-mouth disease, comprises recombinantly produced empty virus capsids as antigens.

Example 6; Page 27; 79pp; French.

The present invention relates to a vaccine against foot and mouth disease (FMD) comprising (in addition to a veterinary vehicle or excipient) an antigen consisting of empty FMD virus capsids, obtained by expression in eukaryotic cells of the CDNA of the following regions of the FMD genome: the PI region encoding the capsid and the region encoding the 3C protease. The vaccine is effective, reliable and stable, and is effective at low doses. The vaccine is useful against foot and mouth disease, especially in cows, sheep, pigs or goats. The present sequence is an oligonucleoride which was used in an example from the invention. (Updated on 29-MUG-2003 to standardise OS field) 

Sequence 20 BP; 6 A; 6 C; 1 G; 7 T; 0 U; 0 Other;

Gaps . 0 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; 3; Indels 0; Mismatches 15; Conservative Local Similarity Matches

. 0

ઠે

ABK15543 standard; DNA; 20 BP ABK15543/c RESULT

ABK15543;

Trehalose synthesis gene TreY PCR primer P16.

. 0

Gaps

٠. ٥

(first entry)

08-MAY-2002

Coryneform bacterium, L-glutamic acid; trehalose synthesis; food production; ostA; treY; PCR; primer; ss. Coryneform

EP1174508-A2

23-JAN-2002.

03-JUL-2001; 2001EP-00115635.

05-JUL-2000; 2000JP-00204256. (AJIN ) AJINOMOTO CO INC

Nakamatsu T; Nakamura J, Izui H, Ohtaki H,

WPI; 2002-156691/21.

Corynebacterium having L-glutamic acid producing ability and reduced or deleted trehalose synthesis ability, is useful for producing L-glutamic acid. 

Example 2; Page 16; 32pp; English.

The invention describes a coryneform bacterium (I) having L-glutamic acid producing ability, where trehalose (secondary product) synthesis ability

```
;
0
is decreased or deleted. (I) is useful for producing L-glutamic acid, by culturing (I) in a medium to produce and accumulate L-glutamic acid in the medium, and collecting the L-glutamic acid from the medium. L-glutamic acid is an important amino acid useful in foodstuffs and drugs. This sequence represents a primer used to isolate a trehalose synthesis gene e.g. ostA or treY in coryneform bacteria, described in the method of
 Gaps
 ô
 Length 20;
 Query Match 1.6%; Score 13.2; DB 1; Length 2
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
 Sequence 20 BP; 3 A; 5 C; 6 G; 6 T; 0 U; 0 Other;
 453 GCCTTCCAGGAAGAGCTC 470
 19 GCCATCAATGAAGAGCTC 2
 ABK50262 standard; DNA; 20 BP
 the invention
 888888888
 a
```

LARC receptor (CCR6) DNA PCR primer #2. (first entry) 30-JUL-2002 ABK50262; **ABK50262** 

LARC, LARC receptor, rheumatoid arthritis, CCR6, cell migration, primer, synovial cell; ss, antirheumatic, antiarthritic, PCR.

Unidentified

WO200232456-A1.

25-APR-2002.

24-APR-2001; 2001WO-JP003504.

13-OCT-2000; 2000JP-00313459.

(TEIU ) TEIUIN LTD.

Kondo H; Akahoshi T, Nakayama Y, Kamimura T,

WPI; 2002-372305/40.

or preventives for rheumatoid arthritis comprises substances og LARC or its receptor, such as an antibody or antagonist. inhibiting Remedies

Example 10; Page 45; 80pp; Japanese.

The invention relates to remedies or preventives for rheumatoid arthritis containing substances inhibiting LARC or its receptor as the active information. Remedies and preventives can be screened by using model animals with rheumatoid arthritis, comparing and evaluating the LARC inhibitory effect of anti-LARC (receptor) antibody, evaluating the inhibitory ability against cell migration induced by LARC, or evaluating the inhibitory ability against cell migration induced by LARC, or evaluating the inhibitory ability against cell migration induced by the culture supernatant of rheumatoid arthritis patient-originated synovial cells. Remedies or preventives may contain substances produced by partial mutation of LARC polypeptide or substances obtained after modifying the LARC gene by genetic engineering. This sequence represents a PCR primer used to amplify LARC receptor (CCRG) DNA

```
Sequence 20 BP; 3 A; 8 C; 3 G; 6 T; 0 U; 0 Other;
```

```
ô
 0; Gaps
Query Match 1.6%; Score 13.2; DB 1; Length 20; Best Local Similarity 83.3%; Pred. No. 5.6e+02; Matches 15; Conservative 0; Mismatches 3; Indels
```

Constructing strains for identifying gene products as effective targets for therapeutic intervention, by inactivating in the strain one allele of a gene and placing other allele of the gene under conditional expression. Fungus; yeast; tetracyclin; promoter; GRACE strain; biosynthesis; signal transduction; DNA replication; cell division; growth; proliferation; Candida albicans; fungicide; antifungal; PCR; primer; ss. Candida albicans GRACE strain PCR primer SEQ ID NO 5693. Bussey H, Ohlsen KL, 1 GGTTCACAGCCCTTTTCA 18 BP. Boone C, 29-DEC-2000; 2000US-0259128P. 20-FEB-2001; 2001US-00792024. 20-FEB-2001; 2001US-00792024. 22-AUG-2001; 2001US-0314050P. 26-DEC-2001; 2001WO-US049486. ABZ31474 standard; DNA; 20 (first entry) (ELIT-) ELITRA PHARM INC. Roemer T, Jiang B, WPI; 2002-566694/60. Candida albicans WO200253728-A2. 30-JAN-2003 11-JUL-2002. ABZ31474; ABZ31474/ 

The invention relates to constructing (M1) a strain of diploid fungal cells in which both alleles of a gene are modified, comprising modifying cone allele by insertion or replacement by a cassette having an expressible selectable marker and modifying other allele by insertion or the constructing a casette having an expressible selectable marker and modifying other allele by promoter. Go that expression of the second allele is regulated by the promoter. (M1) is useful for constructing a strain of diploid fungal cells in which both alleles modified are useful for identifying a gene that contributes to the survival or growth of a fungus, a gene that contributes to the virulence and/or pathogenicity of a fungus, a gene that contributes to the resistance of a diploid fungus to an antifungal agent that inhibits the growth of a diploid fungus of a fort identifying a therapeutic agent for treatment of a mammalian disease. (M1) is useful for identifying a compound which modulates the curvity of a gene product, preferably enzymatic activity, carbon compound catabolism biosynthetic, transporter, transcriptional, contributed in signal transduction, DNA replication and cell division cativity. The method is useful for identifying a compound having the ability to inhibit growth or proliferation and cell division cativity. The method is useful for identifying a compound having the ability to inhibit growth or proliferation of C albicans cells and for treating infection by C albicans. The present sequence data for this patent is not represented in the printed specification of the invention. Note: The sequence of a paracon and cell division contained the patent is not represented in the printed specification of the invention. this patent is not represented in the printed specification but is based on sequence information supplied to Derwent by the European Patent Office

Claim 36; SEQ ID NO 5693; 167pp + Sequence Listing; English

Cuery Match 1.6%; Score 13.2; DB 1; Length 20; Best Local Similarity 83.3%; Pred. No. 5.6e+02; Matches 15; Conservative 0; Mismatches 3; Indels Sequence 20 BP; 9 A; 8 C; 2 G; 1 T; 0 U; 0 Other;

0; Gaps

TGTCTGCTTTGGGGGCTG 150 19 regriecrirederecre 2

à g RESULT 774 ABZ31362

ABZ31362 standard; DNA; 20 ABZ31362; 

BP.

(first entry) 30-JAN-2003

Candida albicans GRACE strain PCR primer SEQ ID NO 5581.

SS. Fungus, yeast, tetracyclin, promoter, GRACE strain, biosynthesis, signal transduction, DNA replication, cell division, growth, proliferation, Candida albicans, fungicide, antifungal, PCR, primer;

Candida albicans.

WO200253728-A2

11-JUL-2002

26-DEC-2001; 2001WO-US049486.

29-DEC-2000; 2000US-0259128P. 20-FEB-2001; 2001US-00792024. 22-AUG-2001; 2001US-0314050P.

(ELIT-) ELITRA PHARM INC.

Bussey H, Ohlsen KL; Boone C, Roemer T, Jiang B,

WPI; 2002-566694/60

Constructing strains for identifying gene products as effective targets for therapeutic intervention, by inactivating in the strain one allele of a gene and placing other allele of the gene under conditional expression.

Claim 36; SEQ ID NO 5581; 167pp + Sequence Listing; English.

The invention relates to constructing (M1) a strain of diploid fungal cells in which both alleles of a gene are modified, comprising modifying cells in which both alleles of a gene are modified, comprising modifying one allele by insertion or replacement by a cassette having an expressible selectable marker and modifying other allele by recombination, of a promoter replacement fragment with a heterologous promoter, so that expression of the second allele is regulated by the promoter. (M1) is useful for constructing a strain of diploid fungal cells in which both alleles of a gene are modified. The diploid fungal cells having both alleles of a gene are weful for identifying a gene that is essential to the survival or growth of a fungus, a gene that contributes to the virulence and/or pathogenicity of a fungus, a gene that contributes to the resistance of a diploid fungus to an antifungal agent that inhibits the growth of a diploid fungus of an antifungal agent that inhibits the growth of a manmallan disease. (M1) is useful for identifying a compound which modulates the compound catabolism, biosynthetic, transporter, transcriptional, transduction, DNA replication and cell division activity of a gene product, preferably enzymatic activity, carbon translational, signal transduction, DNA replication and cell division activity the method of is useful for identifying a compound having the ability to inhibit growth or proliferation of c. albicans cells and for treating infection by C. albicans. The present sequence is that of a per primer used in the method of the invention. Note: The sequence data for this patient is not represented in the printed specification but is based on sequence information supplied to Derwent by the European Patent Office

Sequence 20 BP; 5 A; 10 C; 2 G; 3 T; 0 U; 0 Other;

Gaps .; 0 Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02; 0; Mismatches 3; Indels Query Match
Best Local Similarity 83.3%;
Matches 15; Conservative

ö

ਨੇ g

ABK12330

BP ABK12330 standard; DNA; 20

ABK12330;

(first entry) 05-JUN-2002 Mouse PCR primer p80-Kas, for tracking mutations in the p75 gene.

Mouse; CD30-ligand; CD30; LD; interleukin; IL-lalpha; IL-lbeta; chronic signal transduction; autoimmune condition; multiple sclerosis; chronic inflammarory condition; systemic sclerosis; finflammatory demyclinating polyneuropathy; motor axonal neuropathy; inflammatory demyclinating polyneuropathy; motor axonal neuropathy; motor sensory axonal neuropathy; systemic lupus erythematosus; vulgaris; renumatic disorder; endocrine system disorder; allergy; vallergy; gastrointestinal system disorder; gentiourinary system disorder; haematologic disorder; hereditary condition; liver disorder; haematologic disorder; degenerative disease; skin disorder; mucous membrane disorder; sarcoidosis; arteritis; multicentric reticulohisiocycosis; Wegener's granulomatosis; vasculitis; arthritic condition; TNFalpha inhibitor; primer; p80-Kas; p75; ss.

Mus sp.

WO200211767-A2. 

14-FEB-2002.

06-AUG-2001; 2001WO-US024783.

08-AUG-2000; 2000US-0224079P.

(IMMV ) IMMUNEX CORP

Peschon JJ, Kennedy MK, Pluenneke JD; Mohler KM, Barone DS,

WPI; 2002-280666/32.

rheumatoid Treating autoimmune or chronic inflammatory condition e.g. rheumatoic arthritis, multiple sclerosis, by administering agent capable of inhibiting binding of CD30 to CD30L, or interleukin alpha or beta to interleukin-R1.

Example 3; Page 40; 76pp; English.

The present invention relates to a new method for treating autoimmune or chronic inflammatory conditions in a patient. The method of the invention works by administering an agent capable of inhibiting binding of CD30 to CD301 or of IL (interleukin) -lalpha or IL-1beta to IL-RI thereby blocking signal transduction by CD30 or IL-1. The method is useful for treating an autoimmune or chronic inflammatory condition in a patient where the condition is rheumatoid arthritis, multiple sclerosis, systemic or acts motor sensory axonal neuropathy, acute motor sonsory axonal neuropathy acute motor sensory axonal neuropathy acute motor syndrome, systemic lupus erythematosus, scleroderma and pemphigus volgaris. The invention is also useful for screening a candidate therapeutic agent to determine its efficacy in treating an autoimmune or therapeutic agent to determine its efficacy in treating an autoimmune or chronic inflammatory condition that is resistant to treatment with a TWRalpha inhibitor. The pharmaceutical preparation is useful for treating chematic disorders, disorders of the endocrine system, demandologic disorders, hereditary conditions, disorders of the liver, autoimmune or chronic inflammatory disorders of the endocrine system, hereditary conditions, disorders of the endocrine system, skin or mucous membrane disorders, altergies, sarcoidosis, while or muticus membrane disorders, altergies, arteritis, multicentric reticulohisiocytosis, Negener's granulomatosis, arteritis,

1.08000

```
ö
 The invention relates to sequence determination oligonucleotides for detecting polymorphic sites in a 5' flanking region of cytochrome P450 206 (CYP206) gene. CYP206 enzymes are involved in the metabolism of many different xenobiotics. Human CYP206 gene is located on chromosome 22. The oligonucleotides may be used as in situ hybridisation probes, in ligase-based determination, as components of diagnostic assays, as probes in sequence determination methods based on mismatches, as hybridisation-based diagnostic assays, and as components of diagnostic microarray. CYP206 is useful to predict variations in an individual's ability to metabolise certain drugs. The present sequence is a PCR primer used for analysing human CYP206 gene containing polymorphic sites
vasculitis and arthritic conditions. The present nucleic acid sequence represents the mouse PCR primer p80-Kas that was used in the methods of the invention for tracking mutations in the mouse p75 gene
 New sequence determination oligonucleotides, useful for detecting polymorphic sites in a 5' flanking region of a CYP2D6 gene, as hybridization probes, as components of diagnostic assays, or in ligase-based sequence determination.
 Human, cytochrome P450 2D6, CYP2D6, enzyme, detection, xenobiotic,
ligase-based sequenced determination, drug metabolism, chromosome 22,
 Gaps
 Human CYP2D6 gene polymorphic sites 880 and 942 analysing PCR primer
 ö
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 1.6%; Score 13.2; DB 1; Length 20;
ilarity 83.3%; Pred. No. 5.6e+02;
Conservative 0; Mismatches 3; Indels
 Oliasson E;
 Sequence 20 BP; 6 A; 6 C; 7 G; 1 T; 0 U; 0 Other;
 Seguence 20 BP; 6 A; 5 C; 5 G; 4 T; 0 U; 0 Other;
 Lewander T,
 Claim 3; Page 21; 63pp; English.
 481
 1 AGAGCTCCAGGCACAAGG 18
 27-AUG-2001; 2001WO-IB001544.
 30-AUG-2000; 2000GB-00021286.
 Query Match
Best Local Similarity 83.3%;
Matches 15; Conservative
 464 AGAGCTCCAGGAACTTGG
 (GEMI-) GEMINI GENOMICS PLC
 Andersson MK,
 AAD34232 standard; DNA; 20
 (first entry)
 WPI; 2002-329785/36.
 Local Similarity
es 15; Conserv
 PCR; primer; ss
 WO200218638-A2.
 Homo sapiens.
 16-JUL-2002
 Risinger C,
 07-MAR-2002
 AAD34232;
 Query Match
 RESULT 776
AAD34232/c
 88888
 ò
```

```
The present invention relates to a new compound which is targeted to a mucleic acid molecule encoding RECQL5 and hybridises with and inhibits the expression of RECQL5. The compound is useful for preventing or treating an animal having a disease or condition associated with RECQL5 e.g. tumour or inflammation. The present nucleic acid sequence represents a human RECQL5 mRNA inhibition oligonucleotide that was used in the methods of the invention
 A compound, which hybridizes with and inhibits the expression of RECQLS gene, useful for preventing or treating an animal having a disease or condition associated with RECQLS e.g. tumor or inflammation.
 Human RECQL5 inhibition chimeric phosphorothioate oligonucleotide #22
 Gaps
 Caspase 7; antisense modulation; antiinflammatory; cytostatic; antisense therapy; caspase 7 inhibitor; inflammatory condition; hyperproliferative disorder; cancer; bone metabolism; infection; cholesterol disorder; inflammation; tumour; phosphorothioate; ss.
 ö
 Húman caspase 7 phosphorothioate oligonucleotide SEQ ID NO:55
 Query Match 1.6%; Score 13.2; DB 1; Length 20; Best Local Similarity 83.3%; Pred. No. 5.6e+02; Matches 15; Conservative 0; Mismatches 3; Indels
 RECQL5; tumour; inflammation; cytostatic; antiinflammatory;
RECQL5-inhibitor; human; ss.
 Sequence 20 BP; 2 A; 6 C; 7 G; 5 T; 0 U; 0 Other;
 Example 15; Page 91; 127pp; English.
 383 CCTGCTGGCGGCACACA 400
 ВЪ.
 20 CATGCAGGCGTGCACACA 3
 ВР.
 01-MAR-2002; 2002WO-US006246
 01-MAR-2001; 2001US-00798185
 ABX03708 standard; DNA; 20
 ABN80877 standard; DNA; 20
 (first entry)
 (first entry)
 (ISIS-) ISIS PHARM INC.
 WPI; 2002-750450/81.
 WO200270535-A1
 Homo sapiens.
Synthetic.
 15-JUL-2002
 08-JAN-2003
 12-SEP-2002
 ABX03708;
 Chimeric.
 ABN80877;
 Ward DT,
 RESULT 778
RESULT 777
 ABX03708/c
 ABN80877
 8
 셤
```

. 0

ö

Gaps

.

293 TGTAGTCGGGGCCCTGCA 310

Best Loca Matches

```
The present invention describes a compound (I) 8-50 nucleobases in length targeted to a nucleic acid molecule encoding caspase 7, which specifically hybridises with and inhibits the expression of caspase 7. (I) has antiinflammatory and cativities, and can be used in antisense therapy and as an inhibitor of caspase 7 expression. (I) is useful for inhibiting the expression of caspase 7 in human cells or tissues, and for treating a human having a disease or condition associated with caspase 7 including inflammatory condition, hyperproliferative disorder (cancer), or bone metabolism or cholesterol disorder. (I) is useful for diagnostics, therapeutics, prophylaxis and as research reagent and kits. (I) is useful prophylactically to prevent or delay infection, inflammation or tumour formation. The present sequence represent a human caspase 7 inhibiting chimeric phosphorochiacted in an objective having 2. "MDE wings and a deoxy gap, which is used in an
 Novel antisense compounds targeted to nucleic acids encoding caspase 7, for modulating gene expression and treating diseases associated with expression of caspase 7 in humans.
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 /mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) wing"
16. .20
 /mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) wing"
 /note= "Phosphorothioate linkages'
 Sequence 20 BP; 4 A; 6 C; 3 G; 7 T; 0 U; 0 Other;
 Mouse 14273 reverse PCR primer m14273.
 Location/Qualifiers
 example from the present invention
 Claim 3; Page 86; 138pp; English.
 /mod_base= OTHER
 GCCCTCTCCAGAAGTGAC 232
 GCTTTCTCCAGAGTCAC 18
 1.6%;
 10-SEP-2001; 2001WO-US028232
 11-SEP-2000; 2000US-00659860
 ABQ81229 standard; DNA; 20
 .. .5
/*tag= b
 (first entry)
 /*tag= c
 ๙
 Local Similarity 83.3
nes 15; Conservative
 *tag=
 (ISIS-) ISIS PHARM INC
 WPI; 2002-404806/43.
 Watt AT;
 WO200222640-A1
 modified base
 modified base
 modified base
 Homo sapiens
 05-DEC-2002
 21-MAR-2002
 215
 Н
 Query Match
Best Local S
 ABQ81229
 Zhang H,
 Matches
 ABQ81229/0
ID ABQ8:
XX ABQ8:
AC ABQ8:
DT 05-D1
XX DE MOUSO
 RESULT
ò
 d
```

```
The present sequence is that of reverse PCR primer m14273 for murine 14273 (see ABQB1227), a nucleic acid associated with metabolic disorders. PCR was used to produce a murine 14273 probe (see ABQB1230), which was used to examine the expression profile of 14273. It was found that 14273 molecules are expressed at high levels in adipose tissue, e.g. white adipose tissue, as well as in pancreatic islets. They are upregulated during exposure to cold (i.e. under conditions that affect brown or white adiposyte metabolism) and downregulated in genetic models of bossity. The present invention provides 14273 nucleic acids, polypeptides and antibodies useful for the diagnosis and treatment of metabolic disorders including obesity, anorexia, cachexia and diabetes. Also provided are methods for identifying a subject having a metabolic activity, methods for modulating metabolic activity, methods for modulating metabolic activity, nethods for modulating metabolic activity, methods for modulating metabolic activity or adiposyte activity methods for modulating endogenesis or lipolysis in a subject, and a method for regulating endogenous glucose levels
 ö
 Identifying a nucleic acid associated with a metabolic disorder, useful for disgnosing metabolic disorders, e.g. obesity, comprises contacting the sample with a probe comprising at least 25 contiguous nuclectides of the 14273 gene.
 Gaps
 ;
0
 Human E2F transcription factor 2 antisense oligo, ISIS #114127.
 Length 20;
 3; Indels
 Sequence 20 BP; 2 A; 5 C; 6 G; 7 T; 0 U; 0 Other;
 Score 13.2; DB 1;
Pred, No. 5.6e+02;
0; Mismatches 3;
 Example 1; Page 61; 95pp; English.
 575
 ო
 AAD34930 standard; DNA; 20 BP.
 1.6%;
 558 CAACAGCAGGGATCCTCG
 20 chacaccaccarcrace
 (first entry)
 Query Match
Best Local Similarity 83.3%
...-hes 15; Conservative
 WPI; 2002-698629/75
 16-JUL-2002
 AAD34930;
 AAD34930
 RESULT
8
 g
 X S S X M M M X B X H X G X H
```

Human, E2F transcription factor 2; hyperproliferative disorder; cancer developmental disorder; antisense; therapy; phosphorothioate backbone;

cytostatic; ss.

ô

Gaps . sapiens

Homo sapie Synthetic.

3,50

Mouse, 14273; metabolic disorder; obesity; diabetes; anorexia; cachexia; anorectic; antidiabetic; anabolic; transgenic animal; gene therapy; PCR;

26-FEB-2002; 2002WO-US006131.

WO200267868-A2

06-SEP-2002.

Mus musculus

primer; ss.

26-FEB-2001; 2001US-0271655P. (MILL-) MILLENNIUM PHARM INC.

Tsai F;

Gimeno R,

schu568-1.rng

```
New antisense oligonuclectides targeted to a nucleic acid encoding E2F transcription factor 2, useful for treating a disease or condition associated with E2F transcription factor 2, e.g. hyperproliferative
 16. 720
/*tab
/*mod_base= OTHER
/note= "2'-methoxyethyl (2'-MOE) nucleotides"
 not\bar{e}= "2'-methoxyethyl (2'-MOE) nucleotides"
 'note= "Phosphorothioate backbone"
iocation/Qualifiers
 Claim 3; Page 92; 120pp; English.
 'mod_base= OTHER
 'mod base= OTHER
 /*tag= e
/mod_base= m5c
16. .20
 *tag= c
/mod_base= m5c
 *tag= d
mod_base= m5c
 /*tag= g
/mod_base= m5c
 08-SEP-2000; 2000US-00658679.
 07-SEP-2001; 2001WO-US028202.
 ď
 Д
 disorders, such as cancer
 *tag=
 *tag=
 (ISIS-) ISIS PHARM INC
 Popoff I, Wyatt JR;
 WPI; 2002-329864/36.
 WO200220551-A1
Key
modified_base
 modified base
 modified base
 modified base
 modified base
 modified base
 modified base
 14-MAR-2002
```

The present invention relates to antisense oligonucleotides, compounds and methods for modulating the expression of E2F transcription factor 2. The antisense oligonucleotides specifically hybridise with and inhibit the expression of E2F transcription factor 2. They are useful for inhibiting the expression of E2F transcription factor 2 and for treating diseases or conditions associated with E2F transcription factor 2, such as hyperproliferative disorders, particularly cancer and developmental disorders. They may also be used as research reagents and diagnostics, to distinguish between functions of various members of a biological pathway and in the treatment of a disease or disorder which can be treated by modulating the expression of E2F transcription factor 2. The oligomeric compounds, particularly the antisense oligonucleotides may be used to modulate the function of nucleic acid molecules encoding E2F transcription factor 2, ultimately modulating the amount of E2F transcription factor 2, ultimately modulating the amount of E2F transcription factor 2, ultimately modulating the amount of E2F transcription factor 2 produced. Sequences of the invention are also used in antisense therapy. The present DNA sequence is human E2F transcription factor 2 produced. Sequence is human E2F transcription factor 2 pages and 2 produced.

. 0

Gaps ö

1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ative 0; Mismatches 3; Indels

211 CCCAGCCCTCTCCAGAAG 228

Ś 셤

Conservative

m

ccrarcccrarccagaag

20

ABS73483 standard; DNA; 20 BP.

RESULT 782

(first entry)

03-DEC-2002

ABS73483/ ID ABS7 XX AC ABS7 XX DT 03-DI

```
ö
 0; Gaps
 Query Match
1.6%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
Sequence 20 BP; 3 A; 4 C; 8 G; 5 T; 0 U; 0 Other;
```

Cat; CD28; CD80; CTLA-4; CD86; immunogen; vaccine; viral infection; feline immunodeficiency disease; feline infectious peritonitis; feline leukaemia virus; cancer; degenerative disease; autoimmune disease; virucide; immunomodulator; cytostatic; immunodeficiency; PCR; primer; ss. The present invention relates to a recombinant virus comprising at least one foreign nucleic acid encoding a protein selected from feline cyctoxic T lymphocyte accessory molecules CD28, CD86 or CTLA-4, which is capable of expression when the virus is introduced into an appropriate host. The virus can be administered to the feline in order to elicit or enhance an immune response to prevent or treat feline immunodificiency disease, feline leukemia, feline infectious peritonitis, cancers, degenerative and autoimmune diseases and immunodeficiency. The present sequence is a PCR primer described in the exemplification of the New recombinant virus, useful for immunizing felines to prevent or treat feline immunodeficiency virus, comprises foreign nucleic acid encoding feline cytotoxic T lymphocyte accessory molecules CD28, CD80, CD86 or Sequence 20 BP; 4 A; 2 C; 9 G; 5 T; 0 U; 0 Other; Disclosure; Page 60; 77pp; English. Feline CD28 PCR primer CD28-768. 814 CTGGTACTGTGGGTGCTG 831 3 crescreasearscre 20 99US-00303040. 98US-0083870P. AAL46904 standard; DNA; 20 (first entry) Cochran MD; Query Match Best Local Similarity (WINS/) WINSLOW B J. (COCH/) COCHRAN M D. WPI; 2002-415200/44. US2002051792-A1. 01-MAY-1998; 30-APR-1999; 08-AUG-2002 Felis catus. Winslow BJ, 02-MAY-2002 AAL46904; RESULT 781 AAL46904/ 엄 ઠે

Felis sp.

```
The present invention relates to a new antisense compound targeted to human glioma-associated oncogene-2. The invention is useful for inhibiting the expression of human glioma-associated oncogene-2 in cells or tissues. The invention is also is useful for treatment of diseases associated with human glioma-associated oncogene-2. The invention is further useful for disgnostics, therapeutics, prophylaxis, as research reagents and kits, for distinguishing functions of various members of a biological pathway, and in antisense gene therapy. The invention is also useful prophylactically, e.g., to prevent or delay infection, inflammation or tumour formation. The present nucleic acid sequence represents an oligonucleotide that was used in the methods of the invention to inhibit human glioma-associated oncogene-2
 Cat; vaccine; feline immunodeficiency virus; FIV; immunosuppressant; feline infectious peritonitis; primer; ss; CD80 ligand; CD28; receptor; CTLA-4; vaccine; rabbles; autoimmune disease; PCR; organ transplant; toxoplasmosis gondii; flea; parasite; panleukopaenia; feline leukaemia; PeLV; calcivirus; rotavirus; reovirus type 3; cornavirus; herpes; borna disease.
 Novel antisense compound that hybridizes and inhibits nucleic acid encoding human glioma-associated oncogene-2, useful for treatment of diseases associated with human glioma-associated oncogene-2.
 Human; glioma-associated oncogene-2; antisense compound; infection; inflammation; tumour formation; antiinflammatory; antitumour; inhibitor of human glioma-associated oncogene-2 expression; antisense gene therapy; phosphorothioate; ss.
 Sequence 20 BP; 3 A; 8 C; 6 G; 3 T; 0 U; 0 Other;
 Chimeric phosphoroticate oligonuclectide #64.
 Example 15; Col 45; 43pp; English.
 Feline CD28-768 RT-PCR primer.
 607/c
ABK67607 standard; DNA; 20 BP
 17-JUL-2001; 2001US-00907843
 17-JUL-2001; 2001US-00907843
 20 GGAGGGTCATCGCTGCC
 563 GCAGGGATCCTCGCTGCC
 02-JUL-2002 (first entry)
 Query Match
Best Local Similarity 83.3
Matches 15; Conservative
 Bennett CF, Freier SM;
 (ISIS-) ISIS PHARM INC
 WPI; 2002-697096/75.
 Homo sapiens
 US6440739-B1
 27-AUG-2002
 Synthetic.
Chimeric.
 ABK67607;
 q
 8
```

```
This invention relates to the DNA and protein sequences encoding a soluble CD80 ligand, soluble and membrane-bound CD28 ceceptor and soluble con membrane bound CTLA-4 receptor. The invention also relates to a vaccine comprising an effective amount of these can immune response in a cat. The protein sequences of the invention are comprising an immune response in a cat. The protein sequences of the invention are useful for suppressing an immune response in a felline suffering from an autoimmune disease or the recipient of a tissue or organ transplant. A vector containing the DNA sequences of the invention is useful for redirecting an immune response in a felline to an immunogen such as rabies or trus, chlamydia, toxoplasmosis gondii, flea, felline immunogen such as rabies virus, chlamydia, toxoplasmosis gondii, flea, felline immunogen such as rabies of virus, felline leukaemia (FELV), felline inflectious peritonitis virus, chlamydia, syncitial virus, nerosi sarcoma virus, notavirus, syncitial virus, herpes virus, sarcoma virus, borna disease or immunity through the interaction of soluble CD80 or soluble CD80 fine consulting the interaction of soluble CD80 or soluble CD80 with consulting or felline species. Enhancement of interaction of felline CD80 or CD80 with CTLA-4 takes advantage of the netural process of regulation rather than adding foreign substances that could have multiple, even detrimental effects on overall or long term could have multiple, even detrimental effects on overall or long term could have multiple, even detrimental effects on overall or long term could have multiple, even detrimental effects on overall or long term could have multiple, even detrimental effects on overall or longing
 ö
 Cytohesin-1; CT1; inhibit; cytostatic; antiinflammatory; cytostatic; anti-infective; antisense gene therapy; infection; inflammation; tumour; human; ss; inhibitor.
 Polynucleotide encoding polypeptide of CD80 ligand, CD86 ligand, CD28 receptor or CTLA-4 receptor as vaccine for inducing immune response in feline suffering from autoimmune disease or tissue or organ transplant.
 Gaps
 ..
 1.6%; Score 13.2; DB 1; Length 20;
83.3%; Pred. No. 5.6e+02;
tive 0; Mismatches 3; Indels
 Sequence 20 BP; 4 A; 2 C; 9 G; 5 T; 0 U; 0 Other;
 Human cytohesin-1 mRNA levels inhibitor #50.
 Example 6; Page 23; 73pp; English
 Ĥ
 211 CCCAGCCCTCTCCAGAAG 228
 m
 ВР.
 Choi
 99US-00303510.
 20 CCTATCCCTATCCAGAAG
 ABQ66481 standard; DNA; 20
 (first entry)
 15; Conservative
 Collisson EW, Hash SM,
 (COLL/) COLLISSON E W. (HASH/) HASH S M. (CHOI/) CHOI I.
 WPI; 2002-315045/35
 Best Local Similarity
 US2002028208-A1.
 22-AUG-2002
 30-APR-1999;
 01-MAY-1998;
 07-MAR-2002
 ABQ66481;
 Query Match
 RESULT 784
ABQ66481
ID ABQ664
XX
AC ABQ664
XX
DT 22-AUG
XX
XX
KW Cytobé
KW anti-j
 Matches
8
 g
```

ö

0; Gaps

1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ative 0; Mismatches 3; Indels

580

ო

```
The invention relates to a novel antisense compound of 16-30 nucleotides targeted to any of 71 specified regions of the sequence that encodes human cytohesin-1 (CTI), where the compound hybridises and inhibits expression of human CTI. The compound of the invention has antiinflammatory, cytostatic, and anti-infective activity. The antisense compounds may have a use in antisense gene therapy. The antisense compounds are useful for treating or preventing disorders associated with expression of human CTI, e.g. infections, inflammation and tumours, and as research and diagnostic reagents. Sequences ABQ66412-ABQ6511 represent chimaric phosphorothicate oligonucleotides, with 2-MOE wings and a deoxy gap. The claimed sequences inhibit production of cytohesin-1
 Human; K-ras; PCR primer; probe; capture probe; mutation detection; ligase detection reaction; LDR; p53; BRCAl; BRCA2; infectious disease; infection; 21 bydroxylase deficiency; Turner Syndrom; obesity; cancer; oncogene; tumour suppressor; human pabillomavirus; forensic; environmental monitoring; food industry; feed industry; ss.
 New antisense compounds directed against human cytohesin-1, useful for treating and preventing infection, inflammation and tumors.
 Designing capture oligonucleotide probes for use on a support to which complementary oligonucleotides hybridize with little mismatch.
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 Sequence 20 BP; 7 A; 7 C; 3 G; 3 T; 0 U; 0 Other;
 Kliman
 Capture oligonucleptide Zip ID#3708 oligo #9.
 Favis R,
 Claim 14; Col 41; 40pp; English
 149 IGCAGCICCATACTIGCA 166
 20
 Gerry NP,
 ABI96621 standard; DNA; 20 BP.
 (CORR) CORNELL RES FOUND INC.
 1.6%;
 14-APR-2000; 2000US-0197271P.
 04-APR-2001; 2001WO-US010958.
 3 recaecrecacaareca
 (first entry)
 15; Conservative
WPI; 2002-478385/51
 Zirvi M,
 WPI; 2002-034366/04
 Query Match
Best Local Similarity
 WO200179548-A2.
 16-FEB-2002
 25-OCT-2001.
 Synthetic.
 Barany F,
 ABI96621;
 Matches
 RESULT 786
 8
 ö
 The invention relates to a novel antisense compound of 16-30 nucleotides trageted to any of 71 specified regions of the sequence that encodes human cytohesin-1 (CT1), where the compound hybridises and inhibits expression of human CT1. The compound of the invention has antiinflammatory, cytostatic, and anti-infective activity. The antisense compounds may have a use in anti-isense gene therapy. The antisense compounds are useful for treating or preventing disorders associated with as research and diagnostic reagents. Inflammation and tumours, and as research and diagnostic reagents. Sequences ABQ66431-ABQ66511 represent chimmeric phosphorothioate oligonucleotides, with 2'-MOE wings
 sent chimeric phosphorothioate oligonucleotides, with 2'-MOB wings deoxy gap. The claimed sequences inhibit production of cytohesin-1
 Cytohesin-1; CT1; inhibit; cytostatic; antiinflammatory; cytostatic; anti-infective; antisense gene therapy; infection; inflammation; tumour; human; ss; inhibitor.
 New antisense compounds directed against human cytohesin-1, useful for treating and preventing infection, inflammation and tumors.
 Gaps
 ö
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ive 0; Mismatches 3; Indels
 Sequence 20 BP; 4 A; 9 C; 5 G; 2 T; 0 U; 0 Other;
 Human cytohesin-1 mRNA levels inhibitor #10.
 Claim 14; Col 41; 40pp; English.
 631
 1 GGCCAGCTCACACAGCGC 18
 2000US-00702246.
 30-OCT-2000; 2000US-00702246.
 2000US-00702246.
 614 GGCCATCTCAACCAGCGC
 ABQ66441 standard; DNA; 20
 (first entry)
 Conservative
 (ISIS-) ISIS PHARM INC
 WPI; 2002-478385/51
 Local Similarity
 30-OCT-2000;
 US6383809-B1
 0-OCT-2000;
 US6383809-B1
 Bennett CF,
 22-AUG-2002
 07-MAY-2002
 15;
 07-MAY-2002.
 Synthetic.
 Synthetic
 ABQ66441;
 Query Match
```

RESULT 785

g

ABQ66441

Matches

The present invention describes a method (MI) for designing capture oligonucleotide probes (I) for use on a support to which complementary oligonucleotide probes (II) will hybridise with little mismatch, where (I) have melting temperatures within a narrow range. The method is useful for detecting infectious diseases caused by bacterial infectious agents

Example 5; Fig 29; 300pp; English.

2000US-00702246.

30-OCT-2000;

Cowsert LM;

Bennett CF,

(ISIS-) ISIS PHARM INC.

ö

Gaps

. 0

```
infectious agents e.g. Cryptococcus nectormans, Candida albicans and Asemophilus influenza, fungal infectious agents e.g. Cryptococcus nectormans, Candida albicans and Aspergillus funigaturus, viruses e.g. T-cell lymphocytotrophis cirus, Epstein-Barr virus and polito virus, and parasitic infectious agents calcus agents as a selected from Onchoverva volvulus, Entamoeba histolytica and Dracunculus medinesis. The method is also useful for detecting genetic diseases such as 21 hydroxylase deficiency, Turner Syndrome and obesity defects. Detecting cancer involving oncogenes, tumour suppressor genes, or genes involved in DNA amplification, replication, recombination or repair, the cancer is specifically associated with a gene selected from BRCA1 gene, by human papillomavirus types 16 and 18 and liver cancers. The method is also used for environmental monitoring, forensites and the food method is also used for environmental monitoring, forensites and the food cancer aftes and identifying if ligation of the oligonucleotide probe gets occurred and correlating (using a computer) identified ligation to a presence or absence of the target nucleotide sequences. AB182074 to AB197546 respectsor oligonucleotide sequences used in the exemplification
 the present invention
```

Sequence 20 BP; 4 A; 6 C; 7 G; 3 T; 0 U; 0 Other;

```
.
0
1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ative 0; Mismatches 3; Indels
 227 AGIGACGGCCGIGGCICA 244
 AGTGACGGCAGCGTCTCA 18
 Best Local Similarity 83.3
Matches 15; Conservative
 Query Match
```

ö

Gaps

ABI93156 standard; DNA; 20 ABI93156; 

BP.

Capture oligonucleptide Zip ID#243 oligo #9.

(first entry)

15-FEB-2002

Human, K-ras, PCR primer, probe, capture probe, mutation detection; ligase detection reaction, LDR; p53; BRCA1; BRCA2; infectious disease; infection; 21 hydroxylase deficiency; Turner Syndrome; obesity; cancer; oncogene; tumour suppressor; human papillomavirus; forensic; environmental monitoring; food industry; feed industry; ss.

Synthetic.

WO200179548-A2.

25-OCT-2001

04-APR-2001; 2001WO-US010958.

14-APR-2000; 2000US-0197271P.

(CORR ) CORNELL RES FOUND INC.

Kliman R ĸ, Favis Gerry NP, Barany F, Zirvi M,

WPI; 2002-034366/04.

Designing capture oligonuclectide probes for use on a support to which complementary oligonuclectides hybridize with little mismatch. Example 5; Fig 29; 300pp; English The present invention describes a method (M1) for designing capture oligonucleotide probes (I) for use on a support to which complementary oligonucleotide probes (II) will hybridise with little mismatch, where (I) have melting temperatures within a narrow range. The method is useful for detecting infectious diseases caused by bacterial infectious agents

```
c. g. Salmonella, Listeria monocytogenes and Haemophilus influenza, fungal infectious agents e.g. Cryptococcus neoformans, Candida albicans and Aspergillus fundjautus, Viruses e.g. T-cell lymphocytortophis cirus, Epstein-Barr virus and polio virus, and parasitic infectious agents considered from Onchoverva volvulus, Entamoeba histolytica and Dracunculus selected from Onchoverva volvulus, Entamoeba histolytica and Dracunculus as 21 hydroxylase deficiency, Turner Syndrome and obesity defects.

CC medinesis. The method is also useful for detecting genetic diseases such as 21 hydroxylase deficiency, Turner Syndrome and obesity defects.

CC cancer is specifically associated with a gene selected from BRCA1 gene, cancer is specifically associated with a gene selected from BRCA1 gene, concer is also used for environmental monitoring, forensics and the food and feed industry, detecting comprises scanning clearnaics and the food and feed industry, detecting comprises scanning clearnaic at the computation and consense and infrared microscope) the support at the food particular sites and identifying if ligation of the oligonucleotide probe correlating (using a computer) identified ligation to a presence or absence of the target uncleotide sequences. ABISSO74 to
 of the present invention
```

Sequence 20 BP; 2 A; 9 C; 4 G; 5 T; 0 U; 0 Other;

```
Gaps
 .;
0
Length 20;
 Score 13.2; DB 1; Length 2
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 Query Match
1.6%; Soc
Best Local Similarity 83.3%; Pre
Matches 15; Conservative 0;
```

; 0

946 TGAGTCAACAGCTGGGCA 963 18 readacaaccicciccic

AAD28744 standard; DNA; 20 AAD28744; AAD28744,

RESULT 788

BP

Human ion channel gene, ion-159 amplifying primer #1. 07-MAY-2002 (first entry)

Human, ion channel; neurological disorder; psychiatric disorder; schizophrenia; attention deficit hyperactivity disorder; depression; proliferation disease; migraine; ischaemia; neurodegenerative disease; macular degeneration; Alzheimer's disease; congestive heart failure; glaucoma; Parkinson's disease; cardiovascular disease; arrhythmia; high blood pressure; restenosis; metabolic disease; neuroprotective; obesity; hormonal disorder; polycytic ovarian syndrome; gene therapy, alopecia; anxiety; stroke; neuroleptic; nootropic; cancer; diabetes;

Homo sapiens.

WO200192303-A2.

06-DEC-2001.

25-MAY-2001; 2001WO-US016967

26-MAY-2000; 2000US-0207119P. 26-MAY-2000; 2000US-0207152P. 26-MAY-2000; 2000US-0207257P.

(PHAA ) PHARMACIA & UPJOHN CO

Gotow Benjamin CW, Roberds SL, Karnovsky AM, Ruble CL,

New human ion channel polypeptides and nucleic acids, useful for treating or diagnosing neurological, psychiatric or neurodegenerative diseases, e.g. depression, anxiety, stroke, ischemia, or Alzheimer's or Parkinson's disease. THE TAX BY THE TAX BY THE TAX BY THE TAX BY THE TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY TAX BY BY TAX BY BY TAX BY BY TAX BY BY TAX BY BY TAX BY BY BY TAX BY BY BY BY BY BY

WPI; 2002-147617/19.

The invention relates to ion channel polypeptides designated as ion-x
(where x is 157-175) and their corresponding nucleic acids. The ion-x
sequences and their modulators are useful for the treatment of human
diseases and conditions such as neurological or psychiatric disorders.

These compounds are useful for treating schizophrenia, attention deficit
hyperactivity disorder, depression, anxiety, stroke, migraine, isohaemia
or neurodegenerative disease (e.g. macular degeneration, Alzheimer's
disease, glaucoma, or Parkinson's disease). The compounds that modulate
ion channels can be used for treating of cardiovascular diseases (e.g.
congestive heart failure, arrhythmia, high blood pressure or restenosis),
metabolic diseases and disorders (e.g. diabetes or obesity), hormonal
proliferation diseases and cancers. The ion channels are also useful as
targets for discovering ligands or drugs to treat many diverse disorders
and defects. The ion-x sequences and their modulators may also be used in
are used in gene therapy. The present sequence is a PCR primer used to
amplify human ion channel gene, ion-159 Sequence 20 BP; 4 A; 6 C; 8 G; 2 T; 0 U; 0 Other; Example 13; Page 95; 126pp; English.

1.6%; Score 13.2; DB 1; Length 20; 3.3%; Pred. No. 5.6e+02; ve 0; Mismatches 3; Indels 1 Similarity 83.3%; 15; Conservative Local Similarity Query Match Matches

ö

Gaps

ö

342 CTTGGTGCCAGCGCCAAC 359 m 20 crcerreceasceceae

ò g

ABZ85388 standard; DNA; 20 BP (first entry) 17-0CT-2003 ABZ85388; RESULT 789 ABZ85388/c 

Human oligonucleotide sequence.

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone, antinflammatory; antiallergic, antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy, antisense gene therapy, respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

Homo sapiens.

40200285308-A2

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC.

Aguilar D; Katz E, Pabalan J, s, Li Y, Sandrasagra A, Tang L, Shahabuddin Nyce JW, I Miller S,

WPI; 2003-229219/22.

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone

Claim 15; SEQ ID NO 630; 372pp; English.

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5 or 3 end genomic flanking regions, 5 and 3 intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an attiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antialergic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of antiinflammatory steroid in a subject, for reducing levels of adenosine or lung surfactant in a subject, for reducing levels of adenosine receptor, producing broncholation, increasing levels of ubiquinone or lung surfactant in a subject stissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition.

Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO at fip. wipo.int/pub/published\_pot\_sequences ö Gaps ö 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ive 0; Mismatches 3; Indels Sequence 20 BP; 4 A; 7 C; 8 G; 1 T; 0 U; 0 Other; 564 CAGGGATCCTCGCTGCCT 581 Query Match
Best Local Similarity 83.3
Matches 15; Conservative X35555555555555555555555 ò

18 creesasccreecrect 1 ABZ85199 standard; DNA; 20 BP. RESULT 790 ABZ85199/c ID ABZ85:

Human oligonucleotide sequence. (first entry) 17-0CT-2003 ABZ85199;

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone, antinflammatory, antiallergic, antiasthmatic; hypotensive, immunosuppressive, cytostatic, gene therapy, antisense gene therapy, respiratory; lung, adenosine sensitivity; adenosine receptor; bronchodilation, bronchoconstriction; lung allergy, lung inflammation; respiratory disease; ds.

Homo sapiens.

WO200285308-A2

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC.

Pabalan J, Aguilar D; Li Y, Sandrasagra A, Katz E, Tang L, Shahabuddin S; Nyce JW, I Miller S, 

WPI; 2003-229219/22.

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone.

Claim 15; SEQ ID NO 441; 872pp; English

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the chiral active agent comprising an oligonucleotide antisense to the intradred moden, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antiallergic, antiasthmatic, hypotensive, cimmunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing levels of adenosine coff. or reducing levels of adenosine receptor, producing pronchodilation, increasing bronchoconstriction, lung inflammation, lung allergies, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition.

Note: The sequence date for this patent is not represented in the printed system in the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control of the printed control o

Sequence 20 BP; 8 A; 6 C; 3 G; 3 T; 0 U; 0 Other;

ö Gaps . 0 Query Match
1.6%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3; Indels

ABZ93352 standard; DNA; 20

ABZ93352;

17-OCT-2003 (first entry)

Human oligonucleotide sequence.

Human, antisense, lung dysfunction, nasal airway dysfunction, antiinflammatory steroid, ubiquinone, antiinflammatory, antiallergic; antiasthmatic; hypotensive, immunosuppressive, cyrostatic, gene therapy, antisense gene therapy, respiratory; lung, adenosine sensitivity, adenosine receptor; bronchodiation, bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds. RESULT 791
ABZ93352/C
AC ABZ933
XX
AC ABZ933
XX
AC ABZ933
XX
AC ABZ933
XX
DT 17-OC
XX
DT 17-OC
XX
DT 17-OC
XX
A ALLIA
ALLIA
ALLIA
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX
PO HOMC
XX

Homo sapiens.

WO200285308-A2.

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC

Katz E, Pabalan J, Aguilar Li Y, Sandrasagra A, Ka Tang L, Shahabuddin S; Nyce JW, I Miller S,

WPI; 2003-229219/22

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone

Disclosure; SEQ ID NO 8594; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the control of initiation codon, coding region, 5' or 3' end genomic flanking regions, c' initiation codon, coding region, 5' or 3' end genomic flanking regions, c' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or comparison at larway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antiallargic, antiasthmatic, hypotensive, composition may have a use in antisense gene therapy. The composition may have a use in antisense gene therapy. The composition may have a use in antisense gene therapy. The composition may have a core in a respiratory, lung or malignant disease or condition, also for entainflammatory steroid in a subject, for reducing or depleting levels of or reducing sensitivity to adenosine, reducing or depleting levels of, or reducing sensitivity to adenosine, reducing or depleting levels of ung inflammation, lung allergies, or a respiratory disease or condition.

C' lung surfactant in a subject's tissue, or treating bronchoconstriction, lung allergies, or a respiratory disease or condition.

C' lung inflammation, but was obtained in a lectronic format directly from WIPO contents. 

Sequence 20 BP; 7 A; 4 C; 7 G; 2 T; 0 U; 0 Other;

. 0 Gaps .; 0 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ative 0; Mismatches 3; Indels Set Local Similarity 83.33, East Local Similarity 83.33, East Local Similarity 83.33, East Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local Local

ઠે

RESULT 792 AB28479

ABZ84791 standard; DNA; 20

踞.

ABZ84791;

17-OCT-2003 (first entry)

Human oligonucleotide sequence.

Human, antisense, lung dysfunction; nasal airway dysfunction; antinflammatory steroid; ubiquinone, antinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds. 

Homo sapiens.

WO200285308-A2.

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

(EPIG-) EPIGENESIS PHARM INC

24-APR-2001; 2001US-0286137P.

Li Y, Sandrasagra A, Katz E, Tang L, Shahabuddin S; Nyce JW, I Miller S,

Aguilar

Pabalan J,

WPI; 2003-229219/22.

Pharmaceutical composition for treating allments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone.

claim 15; SEQ ID NO 33; 872pp; English

```
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5 or 3 end genomic flanking regions, 5 and 3 intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubjudinone. A composition of the invention has antiinflammatory, antiallergic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing or depleting levels of or reducing sensitivity to adenosine, reducing levels of ubjudinone or lung surfactant in a subject stissue, or treating bronchoconstriction, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO.

The fip.wipo.int/pub/published_pot_sequences
```

Sequence 20 BP; 5 A; 7 C; 6 G; 2 T; 0 U; 0 Other;

ö Gaps .. 0 Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02; 0; Mismatches 3; Indels 1.6%; 15; Conservative Best Local Similarity Query Match Matches

836 TGGTACCAGAACACAGCC 853

ò 셤

1 receaecteaacceaece

ABZ88325 standard; DNA; 20 ABZ88325; RESULT 793 ABZ88325/C ABZ88325/C ABZ88325/C ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ88 ABZ

ВР

(first entry) 17-OCT-2003

Human oligonucleotide sequence.

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone, antinflammatory, antiallergic, antiasthmatic; hypotensive, immunosuppressive, cytostatic; gene therapy, antisense gene therapy, respiratory; lung, adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

Homo sapiens

WO200285308-A2.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC.

Nyce JW,

Sandrasagra A, Katz E, Pabalan J, L, Shahabuddin S; WPI; 2003-229219/22. Li Y, Sar Tang L, Miller S,

Aguilar D;

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone

Disclosure, SEQ ID NO 3567; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the instanton codon, coding regalon, 5' or 3' end ganomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubjudinone. A composition of the invention has antiinflammatory steroid and ubjudinone. A composition of the invention has antiinflammatory, and cytostatic activity. The composition may have a preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing or depleting levels of or inflammation, producing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing levels of ubjudinone or lung surfactant in a subject, stissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition.

Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO ö Gaps . 0 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels Sequence 20 BP; 3 A; 12 C; 1 G; 4 T; 0 U; 0 Other; ftp.wipo.int/pub/published\_pct\_sequences 771 CTGGAGAAGAAGTGTGAG 788 19 crecacadadercreceae Query Match
Best Local Similarity 83.3
Matches 15; Conservative ઠ

RESULT 794 ABZ8980:

ABZ89802 standard; DNA; 20 BP.

(first entry) 17-OCT-2003 Human oligonucleotide sequence.

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone, antinflammatory; antiallergic, antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy, antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

Homo sapiens.

WO200285308-A2 31-OCT-2002. 

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC.

Aguilar D; Li Y, Sandrasagra A, Katz E, Pabalan J, Tang L, Shahabuddin S; Miller S, Nyce JW,

WPI; 2003-229219/22.

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone

Disclosure, SEQ ID NO 5044; 872pp; English.

```
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the intradred codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 mucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention antiinflammatory antiallergic, antiasthmatic, hypotensive, an antiinflammatory and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for conhencing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing or depleting levels of or reducing sensitivity to adenosine, reducing levels of adenosine corput producing bronchodilation, increasing brenchoconstriction, lung surfactant in a subject sissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WiPo type in the printed specification, but was obtained in electronic format directly from WiPo
```

Sequence 20 BP; 5 A; 4 C; 6 G; 5 T; 0 U; 0 Other;

ö Gaps .. 0 y Match 1.6%; Score 13.2; DB 1; Length 20; Local Similarity 83.3%; Pred. No. 5.6e+02; hes 15; Conservative 0; Mismatches 3; Indels Query Match Matches

ABZ90555 standard; DNA; 20 ABZ90555; Human oligonucleotide sequence

17-OCT-2003 (first entry)

Human; antisense; lung dysfunction; nasal airway dysfunction; antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic; antiinsthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds. RESULT 795
ABZ905S5
AC ABZ905
XX
AC ABZ905
XX
XX
DD Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Human,
XX
Huma

Homo sapiens.

WO200285308-A2.

31-OCT-2002.

23-APR-2002; 2002WO-US013135

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC

Katz E, Pabalan J, Aguilar D; Li Y, Sandrasagra A, Ka , Tang L, Shahabuddin S; Miller S, Nyce JW,

WPI; 2003-229219/22

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone

Disclosure; SEQ ID NO 5797; 872pp; English

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nacal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antiallergic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition may have a use in antisense gractory, lung or mallignant crespition may have a correcting a respiratory, lung or mallignant crespition, also for enhancing the prophylactic or therapeutic respiratory effect of an entitlnammatory steroid in a subject, for reducing or depleting levels of, or receptor, producing bronchodilation, increasing levels of adenosine creceptor, producing bronchodilation, increasing levels of adenosine con ung surfactant in a subject, stissue, or treating bronchoconstriction, lung allergies, or a respiratory disease or condition. Specification, but was obtained in electronic format directly from WIPO at the wire in the with and a continuation. at ftp.wipo.int/pub/published\_pct\_sequences ¥8888888888888888888888888

Sequence 20 BP; 3 A; 9 C; 3 G; 5 T; 0 U; 0 Other;

Gaps .. Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02; 0; Mismatches 3; Indels 1.6%; Query Match
Best Local Similarity 83.39

ö

806 ACTGAACCCTGGTACTGT 823 2 Acrecacicirédictron

g

à

RESULT 79 ABZ86569

ABZ86569 standard; DNA; 20 BP

ABZ86569;

17-OCT-2003 (first entry)

Human oligonucleotide sequence.

Human, antisense; lung dysfunction; nasal airway dysfunction; antiinflammatory steroid; ubiquinone; antiinflammatory; antiallergic; antiasthmatic; phyptensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds. PACH TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE TANK TO THE T

Homo sapiens.

WO200285308-A2.

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC.

Li Y, Sandrasagra A, Katz E, Tang L, Shahabuddin S; Nyce JW, L Miller S,

Pabalan J, Aguilar D;

WPI; 2003-229219/22.

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone.

Claim 15; SEQ ID NO 1811; 872pp; English

- 1

```
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, can initiation codon, coding region, 5' or 3' end genomic flanking regions, can all all and a subject of assal airway dysfunction and a second active agent comprising an natial largery, and a second active agent comprising an antiinflammatory steroid and ubiquinon. A composition of the invention has antiinflammatory, antiallargic, antiathmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an entiathflammatory steroid in a subject, for reducing or depleting levels of, or reducing sensitivity to adenosine, reducing sensitivity to adenosine, reducing levels of ubiquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence date for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO
 Sequence 20 BP; 1 A; 6 C; 8 G; 5 T; 0 U; 0 Other;
 ftp.wipo.int/pub/published_pct_sequences
```

Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02; 0; Mismatches 3; Indels 1.6%; Local Similarity 83.3 es 15, Conservative Query Match Matches

134 GTCTGCTTTGGGGGCTGC 151 3 GGCTGCTTTGGTGGCAGC ò g

20

ABZ87962 standard; DNA; 20 BP. 17-OCT-2003 ABZ87962; RESULT 797 ABZ87962 

(first entry)

Human oligonucleotide sequence.

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid, ubiquinone, antinflammatory; antiallergic, antiasthmatic; hypotensive, immunosuppressive, cytostatic, gene therapy, antisense gene therapy, respiratory; lung, adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

Homo sapiens.

WO200285308-A2.

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC.

Aguilar D; Sandrasagra A, Katz E, Pabalan J, L, Shahabuddin S; Li Y, Sar Tang L, Miller S, Nyce JW,

WPI; 2003-229219/22.

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone

Disclosure; SEQ ID NO 3204; 872pp; English.

institution relates to a movel phratmaceutical composition, which has a initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking regions, 5' or 3' end genomic flanking and/or nasal airway dysfunction and a second active agent comprising an attiinflammatory steroid and ubiquinone. A composition of the invention as attiinflammatory, antiallergic, antiathmatic, hypotensive, in antiallergic, antiathmatic, hypotensive, or septiratory, lung or recomposition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an attifflammatory steroid in a subject, for reducing or depleting levels of adenosine receptor, producing bronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing levels of ubiquinone or lung surfactent in a subject's tissue, or treating bronchoconstriction, lung allergies, or a respiratory disease or condition. Note: The sequence date for this patent is not represented in the printed of the fire the time into the printed of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the form of the f invention relates to a novel pharmaceutical composition, which has a ftp.wipo.int/pub/published\_pct\_sequences 

Sequence 20 BP; 4 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Gaps . 0 Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02; 0; Mismatches 3; Indels 1.6%; Query Match
Best Local Similarity 83.3
Matches 15, Conservative

ò

Gaps

0

. 0

609 GACGIGGCCATCICAACC 626 18 1 daccideccarcicare ઠે g

RESULT 798 ABZ86272,

ABZ86272 standard; DNA; 20 BP. ABZ86272;

(first entry) 17-0CT-2003

Human oligonucleotide sequence.

Human, antisense, lung dysfunction, nasal airway dysfunction, antinflammatory steroid; ubiquinone, antinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

Homo sapiens.

WO200285308-A2 31-OCT-2002. 

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC.

Aguilar Katz E, Pabalan J, Sandrasagra A, K*e* L, Shahabuddin S; Li Y, San Tang L, Miller S, Nyce JW,

WPI; 2003-229219/22

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone.

Claim 15; SEQ ID NO 1514; 872pp; English.

```
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonuclectide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an artifinflammatory steroid and ubjquinone. A composition of the invention has antiinflammatory antialergic, antiasthmatic, hypotensive, municosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing or depleting levels of or reducing sensitivity to adenosine, reducing pronchodilation, increasing levels of ubjquinone or lung surfactant in a subject's tissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition.

Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO.

Et ftp.wipo.int/pub/published_pot_sequences
```

ö 1.6%; Score 13.2; DB 1; Length 20; 33.3%; Pred. No. 5.6e+02; ve 0; Mismatches 3; Indels Sequence 20 BP; 3 A; 3 C; 8 G; 6 T; 0 U; 0 Other; 792 AAACTGCAGGACTGACTG 809 19 AACCIGCACCACTGACTG 2 83.3%; 15; Conservative Local Similarity Query Match

ò

ö

Gaps

ABZ93289 standard; DNA; 20 17-OCT-2003 (first entry) ABZ93289; ABZ99289/C
XX
AC
ABZ93
XX
AC
XX
BE Human
XX
BE Human
XX
BE Human
XX
BE Human
XX
BE ABZ93
BE Human
XX
BE ABZ93
BE ABZ93
BE ABZ93
BE ABZ93
BE ABZ93
BE ABZ93
BE ABZ93
BE ABZ93
BE ABZ93
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
BE ABZ94
B

Human oligonucleotide sequence.

Human, antisense, lung dysfunction, nasal airway dysfunction, antiinflammatory steroid, ubiquinone, antiinflammatory; antiallergic, antiasthmatic, hypotensive; immunosuppressive; cytostatic; gene therapy, antisense gene therapy, respiratory; lung, adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.

WO200285308-A2.

31-OCT-2002.

23-APR-2002; 2002WO-US013135.

24-APR-2001; 2001US-0286137P.

(EPIG-) EPIGENESIS PHARM INC

Li Y, Sandrasagra A, Katz E, Pabalan J, Aguilar D; Tang L, Shahabuddin S; WPI; 2003-229219/22. Nyce JW, Miller S,

Pharmaceutical composition for treating ailments associated with impaired respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid steroid or ubiquinone

15-JUL-2002; 2002WO-US022672. 26-JUL-2001; 2001US-00915814.

Disclosure; SEQ ID NO 8531; 872pp; English.

```
The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonuclectide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 muclectides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an artinifammatory teroid and ubiquinone. A composition of the invention has antiinfammatory, antiallergic, antiasthmatic, hypotensive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, as 1so for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing or depleting levels of or enhancing pronchodilation, increasing levels of adenosine receptor, producing bronchodilation, increasing levels of adenosine receptor, broaducing levels, or a respiratory disease or condition.

Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO
 ö
 Hormone-sensitive lipase, antisense oligonucleotide, inhibitor, obesity, horsphorochibote, antidabetic, anorectic, cytostatic, antisense therapy, abnormal metabolic condition, hyperpripidaemia, type 2 diabetes; cancer, hyperproliferative disorder, human, ss.
 Gaps
 Human HSL chimeric phosphorothioate oligonucleotide SEQ ID NO:116.
 ;
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ative 0; Mismatches 3; Indels
 /mod_base= OTHER
/note= "2'-O-methoxyethyl (2'-MOE) wing"
16. .20
 /note= "2'-0-methoxyethyl (2'-MOE) wing"
 note = "phosphorothioate linkages"
 Sequence 20 BP; 4 A; 5 C; 7 G; 4 T; 0 U; 0 Other;
 at ftp.wipo.int/pub/published_pct_sequences
 Location/Qualifiers
 /*tag= a
/mod_base= OTHER
 'mod_base= OTHER
 458 CCAGGAAGAGCTCCAGGA 475
 ო
 ABZ82727 standard; DNA; 20 BP.
 20 ccaegrcearcrccaesa
 14-MAY-2003 (first entry)
 ...5
/*tag≕ b
 '*tag= c
 Best Local Similarity 83.3
Matches 15; Conservative
 WO2003010139-A2
 modified base
 Homo sapiens.
 modified base
 modified base
 Synthetic.
 ABZ82727;
 RESULT 800
 ABZ8272'
à
```

```
New antisense oligonuclectides for modulating phospholipase A2 group V gene expression, particularly useful for treating an autoimmune disorder or an inflammatory disorder.
 Claim 3; Page 75; 99pp; English.
 28-OCT-2002; 2002WO-US034654
 01-NOV-2001; 2001US-00016149
 (ISIS-) ISIS PHARM INC.
 Wyatt JR;
 WPI; 2003-430513/40.
 Gossypium hirsutum.
 WO2003038050-A2
 WO2003013224-A2.
 rrolinder L,
 13-MAY-2003
 08-MAY-2003
 Bennett CF,
 20-FEB-2003.
 ABZ5855;
 Query Match
 RESULT 802
 Matches
 셤
 ò
 The present invention describes a compound (I) 8-50 nucleobases in length targeted to a nucleic acid molecule encoding a hormone-sensitive lipase (HSL) or a splice variant of HSL. The compound specifically hybridises with and inhibits the expression of HSL or a splice variant of HSL, or specifically hybridises with at least an 8-nucleobase portion of an active site on a nucleic acid molecule encoding HSL. (I) have anorectic, therapy. (I) is useful for treating an animal, particularly human, suspected of having an abnormal metabolic condition such is obesity, hyperlipidaemia, type 2 diabetes, a hyperproliferative disorder such as cancer (e.g. pituitary, colorectal, breast, testicular, pulmonary or pithalial cancer). (I) is also useful in modulating blood glucose levels, particularly plasma or serum glucose levels, in a diabetic animal. The present sequence represents a human hormone-sensitive lipase or serum and the sensitive lipase or serum and the serum and serum and the
 ö
 New antisense oligonucleotides targeted against nucleic acids encoding
 /notē= "Phosphorothioate backbone; All cytidines are 5-
methylcytidines"
 Gaps
 hormone-sensitive lipase, useful for treating abnormal metabolic condition, e.g. hyperlipidemia and obesity, or a hyperproliferative disorder, e.g. cancer.
 Human, phospholipase A2, PLA2, calcium dependent phospholipase A2, PLA2G5, hVPLA2; HPLA2-10, therapy, autoimmune disorder, prophylaxis, inflammatory disorder, antisense, phosphorothioate backbone, ss.
 ;
0
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels
 /note= "2'methoxyethyl nucleotides"
16. .20
 /note= "2'methoxyethyl nucleotides"
 Human PLA2 antisense oligonucleotide, ISIS 127989.
 Sequence 20 BP; 3 A; 5 C; 7 G; 5 T; 0 U; 0 Other;
 Wyatt JR;
 Location/Qualifiers
1. .20
/*tag= a
/mod_base= OTHER
 Example 15; Page 89; 167pp; English.
 example from the present invention
 Butler MM, Watt AT, Freier SM,
 /*tag= c
/mod_base= OTHER
 256
 base= OTHER
 3 GGCCCAGCTCTTGAGGTA 20
 ACC82819 standard; DNA; 20 BP
 239 GGCTCAGCTCTTGAAGGA
 (first entry)
 *tag= b
 Conservative
(ISIS-) ISIS PHARM INC
 /mod
 WPI; 2003-239411/23
 Query Match
Best Local Similarity
Matches 15; Conserv
 Key
modified_base
 modified base
 modified base
 Homo sapiens
 27-AUG-2003
 Synthetic.
 RESULT 801
```

```
ö
The invention relates to antisense compounds, compositions and methods for modulating phospholipase A2 (PLA2) group V gene expression. PLA2 is also known as calcium dependent phospholipase A2, PLA2G5, hVPLA2 and HPLA2-10. The antisense oligonucleotide is useful for treating an animal having a disease or conditions associated with PLA2 group V, e.g. an autoimmune disorder or an inflammatory disorder. It is also useful for modulating PLA2 group V. The antisense compounds are also useful for diagnostics, therapeutics, prophylaxis, or as research reagents or kits. The present sequence is an antisense oligonucleotide targetted to human PLA2 DNA. This sequence is used to illustrate the method of the invention
 New transgenic cotton plant or its seed, cell or tissue, comprising event EB-GH1 in its genome, useful for conferring herbicide tolerance to cotton
 Gaps
 cotton; plant; transgenic plant; glufosinate;
PCR; primer; ss.
 ..
0
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ive 0; Mismatches 3; Indels
 3; Indels
 Elite event EE-GH1 5' flanking region PCR primer GHI06.
 Sequence 20 BP; 5 A; 6 C; 6 G; 3 T; 0 U; 0 Other;
 De Beuckeleer M;
 874
 20
 19-JUL-2002; 2002WO-EP008136.
 06-AUG-2001; 2001US-00921922.
 3 cágricardececeda
 857 CACTGGTGATGAGCCCAA
 (FARB) BAYER BIOSCIENCE NV.
 ABZ58555 standard; DNA; 20
 Jefferson G,
 (first entry)
 Local Similarity 83.3
les 15, Conservative
 Elite event; EE-GH1;
herbicide tolerance;
 WPI; 2003-268124/26.
```

Fri

```
8
 엄
 The present invention relates to the development of an elite event, EE-CG (HI, in cotton and to plants or plant material comprising this event. Plant expensively this event.

CHI, in cotton and to plants or plant material comprising this event.

Plants comprising elite event EE-GHI were obtained through transformation with plasmid pGSV71 (see ABZ58559), which comprises the phosphinochrioin-

acetyltransferase coding sequence (bar gane) from Streptomyces

CC hygroscopicus under the control of the cauliflower mosalc virus 35S promoter. Plants harbouring EE-GHI can be obtained from seeds deposited as ATCC PTA-3343. They are characterised by their glufosinate tolerance, which includes plants tolerant of the herbicide Liberty (TM). The cotton plants combine the herbicide tolerant phenotype with optimal agronomic performance. The present sequence is that of PCR primar defined, which is directed to nucleotides 815 to 795 in the 5' flantmer GHI06, which is identifying a transgenic plant, or its cells or tissues, comprising elite event EE-GHI. Amplification of genomic DNA from such a plant using companies of the EE-GHI event EB-GHI elite event the EB-GHI elite event
 ö
 Mouse, src-c; tyrosine kinase; src-c inhibitor; cytostatic; osteopathic; antiinflammatory; antibacterial; antiense therapy; vaccine; cancer; antisense oligonucleotide; aberrant bone remodeling; breast cancer; hyperproliferative disorder; panoreatic cancer; lung cancer; tumour; ovarian cancer; oesophageal cancre; neuroblastoma; retinoblastoma; kaposi's sarcoma; infection; inflammation; tumour formation;
 Mouse src-c chimeric phosphorothicate oligonucleotide SEQ ID NO:122
 /mod_base= OTHER
/note= "2'-O-methoxyethyl gapmer (2'-MOE wing)"
16. .20
 /*tag= c
/mod_base= OTHER
/note= "2'-0-methoxyethyl gapmer (2'-MOE wing)"
 .
0
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ative 0; Mismatches 3; Indels
 /mcd_base= OTHER
/note= "phosphorothioate linkages"
1.5
 Sequence 20 BP; 4 A; 8 C; 2 G; 6 T; 0 U; 0 Other;
 Location/Qualifiers
 162 TIGCACCATCCGGTGAC 179
 Claim 2; Page 43; 54pp; English
 ABZ59501 standard; DNA; 20 BP
 17-APR-2003 (first entry)
 /*tag= b
 /*tag= a
 Query Match
Best Local Similarity 83.3
Matches 15; Conservative
 WO200295053-A2
 Key
modified_base
 modified base
 modified base
 Mus musculus
 28-NOV-2002
 Synthetic.
 ABZ59501;
 ð
 g
```

```
The present invention describes a compound (I) that is 8-50 nucleobases in length targeted to a nucleic acid molecule encoding a 5'TPR, 3'UTR, coding region, intron region, exon respon, stop codon, intron-exon junction, exon-exon junction, or 5' mRNA variant of src-c, and which specifically hybridises with and inhibits the expression of src-c. (I) have cytostatic, antihinflammatory, osteopathic and antibacterial cartisfies and can be used in antisense therapy and in vaccines. The artisense compounds (I) can be used for modulating the expression of src-crating diseases or conditions associated with expression of src-cr, e.g. aberrant bone remodeling or hyperproliferative disorders, particularly cancer, such as breast cancer, pancreatic cancer, lung cancer, ovarian cancer, casophageal cancer, pancreatic cancer, lung cancer, ovarian cancer, cesophageal cancer, neuroblastoma, retinoblastoma cancer, ovarian cancer, cancer, usuroblastoma, retinoblastoma cor Kaposi's sarcoma. (I) are also useful for diagnostics, therapeutics, prophylaxis, e.g. to prevent or delay infection, inflammation or tumour formation, as research reagents and kits, and in distinguishing between functions of various members of a biological pathway. The present sequence represents a mouse src-c antisense chimeric phosphorothioare oligonucleotide, which is used in an example from the present invention
 Human; ss; antisense; serum amyloid A4; SAA4; lipoprotein; apolipoprotein; high density lipoprotein; HDL; amyloid A; amyloid fibril; amyloidosis; inhibition; antagonist; diagnosis; antisense therapy; tumour formation; inflammatory disorder; rheumatoid arthritis; familial Mediterranean fever.
 New antisense oligonucleotides targeted to nucleic acids encoding src-c, useful for diagnosing, treating or preventing diseases associated with the expression of src-c, e.g. cancer or inflammation, and in research
 Gaps
 Antisense oligonucleotide against human SAA4 expression, ISIS 145130
 ö
 Query Match
1.6%; Score 13.2; DB 1; Length 20;
Best Local Similarity 83.3%; Pred. No. 5.6e+02;
Matches 15; Conservative 0; Mismatches 3; Indels
 Sequence 20 BP; 4 A; 7 C; 6 G; 3 T; 0 U; 0 Other;
 Example 16; Page 92; 137pp; English
 384 CIGCIGGGGGGCACACAC 401
 ABX34276 standard; DNA; 20 BP.
 01-AUG-2001; 2001US-00920672.
 01-AUG-2001; 2001US-00920672.
18-MAY-2001; 2001US-00860473.
 CIGGIGGCIGGCACACIC
 (first entry)
 (ISIS-) ISIS PHARM INC
 Bennett FC, Watt AT;
 WPI; 2003-120806/11.
 sapiens
 JS6455308-B1
 10-FEB-2003
 24-SEP-2002.
 applications
 Synthetic.
 ABX34276;
 18
 RESULT 804
 ABX34276
```

. ... ...

1

16-MAY-2002; 2002WO-US015684

Freier SM

```
The invention relates to a novel support for ligand immobilization, which is coated with a polyanion which has previously been activated. The support is useful for the production of DNA chips, protain chips, sugar chips and biosensors for investigative and diagnostic uses. Ligands which can be immobilized to the support include agonists, antagonists, toxins, venoms, virus epitopes, hormones, lectins, hormone receptors, peptides, nucleic acids, drugs, sugars, oligonucleotides, proteins, antigens, monoclonal antibodies, cells, viruses, and avidins. In an example of the linvention, the ligand bound to the support is a PCR primer targeted to a number of genes and used to diagnose the presence and potentially the transcribtion of the genes. This sequence represents a 3' primer targeted to the vascular cell adhesion molecule 1 (VCAM-1) gene
 The present sequence oligonucleotide sequence, designated alphal, is based on a human alpha satellite monomer consensus. It was used in alphoid PCR amplifications that demonstrated preferential HIV integration in or near alphoid DNA in latently infected Jurkat cells. The invention provides isolated cells that harbour a latent immunodeficiency virus that
 Polyanion-coated ligand immobilization support for production of DNA
 Gaps
 Novel isolated cells that comprise transcription competent immunodeficiency virus e.g. \mathrm{HIV-1}, or immunodeficiency virus-based retroviral vector integrated into its genome, useful for identifying
 Human; alphoid; immunodeficiency virus; HIV; anti-HIV; latency; PCR;
 .
0
 1.6%; Score 13.2; DB 1; Length 20; 33.3%; Pred. No. 5.6e+02; very 0; Mismatches 3; Indels
 Human alphoid consensus sequence PCR primer alphal.
 Sequence 20 BP; 4 A; 8 C; 1 G; 7 T; 0 U; 0 Other;
 chips, protein chips and biosensors.
 Example 2; Page 41; 51pp; Japanese.
 Example 1; Page 33; 71pp; English.
 762 ATGGCAGAACTGGAGAAG 779
 20 ATGAGAGAACTGGAGGAG 3
 BP.
 ilarity 83.3%;
Conservative
 18-DEC-2002; 2002WO-US040698,
 19-DEC-2001; 2001US-0341727P
 ACF05117 standard; DNA; 20
 (first entry)
 (REGC) UNIV CALIFORNIA.
 latent HIV activators.
 WPI; 2003-342750/32.
 Jordan A;
 WPI; 2003-577369/54.
 Local Similarity
es 15; Conserv
 WO2003054160-A2
 Homo sapiens.
 06-NOV-2003
 03-JUL-2003
 Verdin E,
 ACF05117;
 Query Match
 Matches
 RESULT 806
 셤
 ઠે
 The invention discloses antisense oligomucleotides that specifically hybridise with a region encoding human serum amyloid A4 (SAA4) and controlled the spersesion. Lipoproteins are globular, micelle-like particles which have been classified into five categories. The protein components of lipoproteins are known as apolipoproteins, and one family of these are controlled these are controlled these are high density lipoprotein (HDL) and act as precursors of the amyloid A proteins found in amyloid fibril deposits formed during the process of proteins found in amyloid fibril deposits formed during the process of myloidesis. The antisense compounds and methods are useful for anyloidasis. The antisense compounds and mathods are also useful for diagnosing, preventing and treating (using antisense therapy) diseases associated with elevated expression of serum amyloid A4, e.g. tumour formation or inflammatory disorders such as rheumatoid arthritis and familial Mediterranean fever. The antisense compounds can also be used as research reagents and diagnostics, or as tools in differential and/or combinatorial analyses to elucidate expression patterns of a portion or the entire complement of genes expressed within cells or tissues. The sequences presented in ABX4211-ABX3428 are the antisense oligonucleotides which are directed against human SAA4 expression. Each antisense oligonucleotide has a phosphorothioate backbone, all cytidines residues are 5-methylcytidines complement of and bases 1-5 and 16-20 are 2-methoxyethyl (2'-MOE) nucleotides
 .
0
 New antisense compounds, useful for inhibiting the expression of serum amyloid A4, and for diagnosing, preventing or treating diseases associated with expression of serum amyloid A4, e.g. tumor formation or
 Gaps
 Primer; ss; support; ligand immobilization; activated polyanion; DNA chip; protein chip; sugar chip; biosensor.
 ö
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ive 0; Mismatches 3; Indels

 primer to amplify VCAM-1 gene for ligand support method.

 3; Indels
 Rokushima M, Kato I;
 Sequence 20 BP; 9 A; 3 C; 6 G; 2 T; 0 U; 0 Other;
 Example 15; Col 47-48; 42pp; English
 458 CCAGGAAGAGCTCCAGGA 475
 20
 BP.
 Asada K, Imose N, Takeda O,
 20-SEP-2002; 2002WO-JP009661.
 21-SEP-2001; 2001JP-00288149.
 3 ccadgaadagcraragaa
 ACC44275/c
ID ACC44275 standard; DNA; 20
 (first entry)
 Local Similarity 83.3
nes 15; Conservative
 inflammatory disorders
(ISIS-) ISIS PHARM INC
 (TAKA-) TAKARA BIO INC.
```

Query Match

Matches

à 셤 WO2003027674-A1.

Synthetic

3-APR-2003

07-JUL-2003

ACC44275;

RESULT 805

. 0

886666688

Dp

ò

BP.

(first entry)

```
Inducing differentiation of mammalian embryonic stem (ES) cells int functioning cells, for treating e.g. diabetes, comprises culturing cells in a medium containing leukemia inhibitor factor and basic fibroblast growth factor.
 Embryonic stem cell; ES cell; mouse; differentiation; nerve cell; panoreatic islet cell; cell transplant therapy; antidiabetic; neuroprotective; nootropic; PCR; primer; ss.
 Murine embryonic cell line HNF3 PCR primer #2.
 (OKUM-) OKUMA CONTACTLENS KENKYUSHO YG. (INOU/) INOUE K.
 Example 1; Page 65; 70pp; English.
 25-JAN-2002; 2002US-00054789.
 27-JAN-2003; 2003WO-JP000699
 ACF04237 standard; DNA; 20
 Inoue K, Kim D, Gu Y,
 WPI; 2003-598750/56.
 WO2003062405-A2
 31-JUL-2003.
 06-NOV-2003
 ACF04237;
 Mus sp
 RESULT 80
ACF04237
 New primordial human neural crest stem cell having a pluripotent and self-renewing properties, useful for implantation in vivo for cell therapy treatment of human neurological disorders and diseases.
 The present invention relates to a primordial human neural crest stem cell line suitable for on-demand implantation in vivo into a living host subject comprising a pluripotent and self-renewing neural crest stem cell of human origin. The cell line is useful in the cell therapy treatment of human neurological disorders and diseases. The present sequence is a PCR primer used to isolate human genes from the HNC10 cell line
 o;
is transcription competent, that can be reactivated, and that is an in vitro model for latent HIV infection in vivo. The cells are useful for investigating the nature of latency, and also in drug screening assays to identify agents that activate latent HIV. Such agents are useful for reducing the reservoir of latent HIV. Methods are provided of treating an immunodeficiency virus infection
 Human, neural crest stem cell line; transplantation; cell therapy;
neurological disease; HNC10 cell; neuroprotrotective; cerebroprotective;
PCR; primer; ss.
 Gaps
 ;
0
 1.6%; Score 13.2; DB 1; Length 20; ilarity 75.0%; Pred. No. 5.6e+02; Conservative 1; Mismatches 4; Indels
 Sequence 20 BP; 9 A; 3 C; 4 G; 3 T; 0 U; 1 Other;
 Human HNC10 cell TrkB gene PCR primer #1.
 Disclosure; Page 39; 70pp; English.
 260 AGACAGGAGCACCTTCAGAA 279
 1 AGACAGAAGCATTCTSAGAA 20
 (UYBR-) UNIV BRITISH COLUMBIA. (CHIL-) CHILDRENS MEDICAL CENT.
 Query Match
Best Local Similarity
Matches 15; Conserv
```

into ing ES

Ishii M;

```
The present invention relates to a method of inducing differentiation of mammalian embryonic stem cells into functioning cells, which comprises culturing embryonic stem cells in a medium comprising leukaemia inhibitor factor and basic fibroblast growth factor. In particular, the invention crelates to the differentiation of mammalian embryonic stem cells. The method is useful for inducing differentiation of mammalian embryonic stem cells. The method are useful for treating a mammalian compation disorders in pancreatic function, and in nerve function. The cells are pancreatic islet like cell clusters and nerve like cells. Functioning cells induced from embryonic stem cells using the present certain may be used for treating disorders in pancreatic islet function (e.g. diabetes), neuronal degeneration (e.g. Alzheimer's disease and creutzfeldt-Jakob disease) or spinal cord disorders. The functioning cells are useful not only for cell transplant therapy, but for in vitro cells are useful or only for cell transplant therapy, but for in vitro cells are useful or safety evaluation of new drugs. The present sequence is a PCR primer used in the exemplification of the invention
 ö
 Gaps
 ·,
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02;
 3; Indels
 Sequence 20 BP; 6 A; 5 C; 6 G; 3 T; 0 U; 0 Other;
 0; Mismatches
 268 GCACCTTCAGAAGTTGT 285
 GCACCTTGAGAAAGCAGT
 RESULT 809
ACF05282/c
ID ACF05282 standard; DNA; 20
XX
AC ACF05282;
 15; Conservative
 ઠે
 셤
```

Gaps

..

y Match 1.6%; Score 13.2; DB 1; Length 20; Local Similarity 83.3%; Pred. No. 5.6e+02; nes 15; Conservative 0; Mismatches 3; Indels

Query Match Best Local Si Matches 15,

479 TGGCATTCCTCAGGATCT 496

8 g

0

19 TGGCATCCTTCAGGGTCT

BP; 7 A; 5 C; 6 G; 2 T; 0 U; 0 Other;

06-NOV-2003

19-JUN-2003

Feder JN,

```
The invention relates to growth hormone 1 (GH-1) gene including single nuclectide polymorphisms (SNP). The GH-1 diagnostic polymuclectide is useful as markers for the analysis of a disease, of susceptibility to drug treatment for GH-1 dysfunction or other diseases, or may be included in any complete or partial genetic map of the human genome. GH-1 mutant polypeptides are useful as anagonists of GH-1 hormone action. Polymuclectides encoding these polypeptides are useful in gene therapy. The present sequence is a PCR primer used for amplifying human GH-1 gene
 New growth hormone 1 (GH-1) diagnostic polynucleotide, useful as markers for the analysis of a disease, or of susceptibility to drug treatment for GH-1 dysfunction or other diseases.
 Antisense; nucleotide binding oligonucleotide domain 1, gene therapy; ss; caspase associated recruitment domain 4; programmed cell death; cancer; apoptosis; Alzhemer's; neurodegenerative; Parkinson's; ALS; NOD1; CARD4; amyotrophic lateral solerosis; retinitis pigmentosa; autoimmune disorder; viral infection; human; chimeric.
 New compound, comprising a sequence targeted to a nucleic acid encoding nucleotide-binding oligomerization domain 1 (NOD1), useful for preparing
 Chimeric antisense oligonucleotide ISIS 199203 to inhibit human NOD1.
 1.6%; Score 13.2; DB 1; Length 20;
ilarity 83.3%; Pred. No. 5.66+02;
Conservative 0; Mismatches 3; Indels
 Seguence 20 BP; 3 A; 4 C; 6 G; 7 T; 0 U; 0 Other;
 Example 2; Page 30; 74pp; English.
 746 CTTGGTCCTTAAGGAGAT 763
 Parodi LA;
 13
 (PHAA) PHARMACIA & UPJOHN CO.
 BP.
 07-NOV-2002; 2002WO-US035719.
 09-NOV-2001; 2001US-0347448P.
 05-DEC-2001; 2001US-00006883.
 04-DEC-2002; 2002WO-US038606.
 2 crassrccrrrassassr
 ABT44207 standard; DNA; 20
 (first entry)
 Chimeric - Homo sapiens
 (ISIS-) ISIS PHARM INC
 Query Match
Best Local Similarity
 WPI; 2003-449555/42.
 Roach MP;
 Wagner S,
 WPI; 2003-577293/54.
 WO2003050246-A2.
 06-NOV-2003
 22-MAY-2003.
 19-JUN-2003
 Dobie KW,
 Wood LS,
 RESULT 811
셤
 à
 The present sequence is that of PCR right primer 1, which was used in the cloning of HGPRBMY34 cDNA (see ACF05275) from selected cDNA libraries. HGPRBMY34 is a novel 6-protein coupled receptor that is highly expressed in brain, spinal cord and pitulitary, indicating an association in neurological systems. The invention provides HGPRBMY34 polynucleotides, polypeptides and antibodies, expression vectors, host cells and antisense molecules, methods for screening for modulators of HGPRBMY34 activity and/or function, and methods for diagnosing, treating, preventing and screening for disorders and diseases associated with abnormal HGPRBMY34
 ô
 HGPRBMY34; G-protein coupled receptor; receptor; GPCR-P14; GPCR-145; human; neuroprotective; nootropic; tranquillizer; antimigraine; neuroleptic; antimanic; antidepressant; anticonvulsant; antiparkinsonian; cytostatic; cardiant; hypotensive; antianginal; analgesic; anorectic; anti-HIV; antiasthmatic; osteopathic; uropathic; antiulcer; antiallergic;
 New nucleic acid molecule encoding a human G-protein coupled receptor, HGPRBMY34, useful for diagnosing, preventing or treating diseases involving the receptor, for example Parkinson's disease, dementia, asthma, hypertension or cancer.
 Gaps
 Human, growth hormone 1; GH-1; single nucleotide polymorphism; SNP; gene therapy; PCR; primer; ss.
 ò
 Human G-protein coupled receptor HGPRBMY34 PCR primer right 1.
 1.6%; Score 13.2; DB 1; Length 20; ilarity 83.3%; Pred. No. 5.6e+02; Conservative 0; Mismatches 3; Indels
 Human GH-1 gene amplifying PCR primer, CRV156.4tl.
 Sequence 20 BP; 3 A; 5 C; 5 G; 7 T; 0 U; 0 Other;
 Ramanathan CS;
 Example 3; Page 154; 112pp; English.
 Mintier GA,
 363
 (BRIM) BRISTOL-MYERS SQUIBB CO
 gene therapy; PCR; primer; ss
 AAL60041 standard; DNA; 20 BP.
 06-DEC-2002; 2002WO-US039290.
 06-DEC-2001; 2001US-0338371P.
 18 GTGCCAGAAGCAACCTGT
 346 GTGCCAGCGCCAACCTGT
 (first entry)
 (first entry)
 Gopal S,
 WPI; 2003-577295/54.
 Local Similarity
tes 15; Conserv
 WO2003050256-A2
 WO2003042226-A2
```

Homo sapiens

27-AUG-2003

AAL60041;

RESULT 810

g

Query Match

Matches

ö

Gaps

.

Jul 30 10:32:03 2004

Bourseo-r.rid

This invention relates to novel chimeric antisense oligonucleotides that specifically hybridise to and inhibit the expression of the nucleotide binding oligonucleotide domain 1, NOD1 protein. NOD1, also known as CARD4 (caspase associated recruitment domain 4) is a domain that is involved in the elimination of cells via programmed cell death and in the host of defence against pathogens, i.e. it works to requiate apoptosis. Apoptosis is a naturally occurring process, however, if it becomes overstimulated it can lead to cell loss and neurodegenerative conditions including Alzheimer's, Parkinson's, amyotrophic lateral sclerosis (ALS), retinitis process and neurodegenerative conditions including can contribute to the development of cancer, autoimmune disorders and viral infections. The present invention describes antisense collgonucleotides that can modulate NODI expression (and variants thereof), such that these compounds, via gene therapy, can be used to thereof, such that these compounds, via gene therapy, can be used to cligonucleotide sequence is the chimeric antisense oligo used to inhibit expression of human NODI, the aim of the invention. Note that it has two terminal five nucleotide 2'-methoxyethyl (2'-NOE) wings separated by a throughout the thereof the procession is phosphorothioate a composition for treating hyperproliferative disease, e.g., cancer Example 15; Page 76; 138pp; English. 

Sequence 20 BP; 4 A; 9 C; 2 G; 5 T; 0 U; 0 Other;

throughout

Gaps ; Score 13.2; DB 1; Length 20; Pred. No. 5.6e+02; 0; Mismatches 3; Indels 1.6%; Query Match
Best Local Similarity 83.3
Matches 15, Conservative

ö

ò

g

ADB17804 standard; DNA; 20 (first entry) 20-NOV-2003 ADB17804; 

Wheat glutathione S-transferase (GST) gene-specific PCR primer #4.

wheat; detection; PCR; primer; ss; trace component; harmful allergen; food; glutathione S-transferase; GST.

Triticum aestivum

WO2003068989-A1.

21-AUG-2003.

26-SEP-2002; 2002WO-JP009983

15-FEB-2002; 2002JP-00039040. 29-MAR-2002; 2002JP-00132119.

(NISS ) NISSHIN SEIFUN GROUP INC.

Miyatake K, щ Yamakawa H,

WPI; 2003-679644/64.

Hayakawa K;

PCR-based method for testing wheat using specific primers designed from its gene, useful in detecting trace components or identifying specific harmful allergens in (processed) foods.

Example 1; Page 20; 55pp; Japanese.

The invention comprises a method of testing for the presence or absence

```
ö
of wheat in a food, the method involves performing PCR with primers that are specific to a gene from wheat. The method of the invention is useful for detecting trace components or identifying specific harmful allergens in (processed) foods. The present DNA sequence represents a PCR primer for the wheat glutathione S-transferase (GST) gene.
 Gaps
 .,
 Length 20;
 3; Indels
 Sequence 20 BP; 3 A; 4 C; 8 G; 5 T; 0 U; 0 Other;
 Score 13.2; DB 1;
Pred. No. 5.6e+02;
0; Mismatches 3;
 260 AGAÇAGGAGCACCTTCAG 277
 19 AGCCAGATGCACCTTCAG 2
 1.6%;
 Query Match
Best Local Similarity 83.33
Matches 15, Conservative
 888888
 8
 g
```

Tumour necrosis factor alpha; TNF-alpha; antiinflammatory; antirheumatic; antiarthritic; antidiabetic; dermatological; hepatotropic; antiasthmatic; inflammatory disorder; inflammatory bowel disease; Crohn's disease; colitis; rheumatord arthritis; diabetes; pancreatitis; multiple sclerosis; atopic dermatitis; asthma; hepatitis; antisense technology; ss. Tumour necrosis factor alpha antisense oligonucleotide #113. 

BP

5110/c ACD05110 standard; DNA; 20

RESULT 813 ACD05110/c

05-AUG-2003 (first entry)

ACD05110;

Synthetic.

US2003022848-A1.

30-JAN-2003.

02-APR-2001; 2001US-00824322

98US-00166186. 05-OCT-1998; 18-MAY-1999;

뚀. (BAKE/) BAKER B F. (BENN/) BENNETT C F. (BUTL/) BUTLER M M. (SHAN/) SHANAHAN W R Shanahan WR; Butler MM, Baker BF, Bennett CF,

WPI; 2003-447433/42.

Treating inflammatory disorders such as inflammatory bowel disease, Crohn's disease or rheumatoid arthritis, in a subject, by administering oligonucleotide which inhibits expression of human tumor necrosis factor alpha.

Example 8; Page 25; 142pp; English.

The invention describes a method of treating an inflammatory disorder in an individual, comprising administering to the individual an obligonucleotide upto 30 nucleotides in length complementary to a nucleic acid molecule encoding human tumor necrosis factor (TNF) alpha. The method is useful for treating an inflammatory disorder such as inflammatory bowel disease, Crohn's disease, colitis or rheumatoid disbetes, pancreatitis, in an individual. The method is also useful for treating diabetes, pancreatitis, multiple sclerosis, atopic dermatitis, asthma, and hepptitis in an individual. This sequence represents an antisense oligonucleotide used to modulate expression of tumour necrosis factor alpha (TNF-alpha)

Sequence 20 BP; 3 A; 9 C; 1 G; 7 T; 0 U; 0 Other;

```
Sequence 20 BP; 5 A; 5 C; 6 G; 4 T; 0 U; 0 Other;
```

1.6%; Score 13.2; DB 1; Length 20;

Query Match

```
The invention relates to a non-naturally occurring human epidermal growth factor receptor (HER)-3 variant polypeptide comprising amino acids 19-329 or 20-329 of the 1342 amino acid HER3 polypeptide (MEB67617) or a sequence which differs from native HER3 polypeptide and having amino acid substitutions at residues E43, M44, K51, E64, V66 and V110 of S1, is new. The variant HER-3 specifically binds to the hersquilin polypeptide amino acid polypeptide (ADB67619), exhibits an impaired ability to interact with HER2 polypeptide (ADB67619), or has an ability to inhibit the interaction between wild-type HER3 and hersquilin. The polypeptide is useful for identifying a compound which specifically binds to hersquilin binding domain in a HER3 variant polypeptide. The method further involves determining whether the test compound inhibits or enhances the hersquilin induced tyrosine kinase activity associated with a HER3 polypeptide. The interaction between a hersquilin polypeptide is also useful for determining whether a test compound inhibiting the interaction between a hersquilin polypeptide and HER3 polypeptide. The HER3 polypeptide is also useful for inhibiting the interaction between a hersquilin polypeptide and HER3 polypeptide, e.g. for treating cancer. The polypeptide is also useful for simulating or activating HER3 receptor. This sequence represents a PCR primer used to murate the coding sequence for the wild type human HER-3 invention.
 ö
 ss; primer; cytostatic; human epidermal growth factor receptor-3; HER-3; heregulin; HER2; tyrosine kinase activity; cancer; mutant.
 Novel human epidermal growth factor receptor 3 variant as agonist or antagonist of HER3 receptor, for diagnosis/treatment of cells or pathological conditions associated with aberrant expression of heregulin or HER3.
 Gaps
 ..
 Human HER-3 coding sequence mutant V66A minus strand primer.
1.6%; Score 13.2; DB 1; Length 20; 33.3%; Pred. No. 5.6e+02; Ive 0; Mismatches 3; Indels
 Eisenberg D;
 Disclosure; Page 76; 137pp; English.
 Slamon DJ,
 909 AAGTGAAAAGACAGCGGG 926
 20 ATGTGGAAAGACAGAGG 3
 BP.
 27-JUL-2001; 2001US-0308341P.
 29-JUL-2002; 2002WO-US023963.
 83.3%;
 ADB67635 standard; DNA; 20
 (first entry)
 Local Similarity 83.3
les 15; Conservative
 (REGC) UNIV CALIFORNIA
 Landgraf R,
 WPI; 2003-300482/29
 WO2003011897-A1
 Homo sapiens.
 04-DEC-2003
 13-FEB-2003
 invention.
 Singer E,
 ADB67635;
 Query Match
 RESULT 814
ADB67635
 Best Loca
Matches
```

```
ö
 New compound, having a sequence targeted to a nucleic acid encoding human collapsin response mediator protein 2, useful for preparing a composition for treating hypercholesterolemia or hyperproliferative disorder, e.g.,
 /*tag= a/*hod //hodbag= OTHER/hosphorothioate backbone, where 1-5 and /hote= "OTHER= phosphorothioate backbone, where 1-5 and 16-20 are 2', methoxyethyl nucleotides. All cytidines are
 Gaps
 2C 1;
 antisense; ss; human; eukaryotic translation initiation factor EIF2C1; Co-EIF2C; Golgi ER protein 95kDa; GERp95; Q99; gene therapy; hyperproliferative disorder; familial hypercholesterolaemia; cancer; polycystic kidney disea cystic fibrosis; progeriod syndrome; cytostatic; antilipaemic.
 ;
 Antisense oligo (SeqID 33) used to inhibit human EIF2C1 DNA.
 Indels
Pred. No. 5.6e+02;
 0; Mismatches
 Location/Qualifiers
 5-methylcytidines"
 Claim 3; Page 76; 120pp; English.
 801
 19
 BP.
 04-NOV-2002; 2002WO-US035324.
 83.3%;
 08-NOV-2001; 2001US-00007078.
 784 GIGAGCGCAAACIGCAGG
 Gradecacharcreade
 ADB81516 standard; DNA; 20
 (first entry)
 15; Conservative
 . .20
*tag=
 (ISIS-) ISIS PHARM INC.
 WPI; 2003-449448/42.
 Best Local Similarity
 Watt AT;
 WO2003040321-A2
 Key
modified_base
 Homo sapiens.
 04-DEC-2003
 15-MAY-2003
 ADB81516;
 Ward DT,
 cancer.
 RESULT 815
 Matches
 ADB81516,
 ò
 g
```

This invention relates to novel antisense oligonucleotides that modulate the sypression of human eukaryotic translation initiation factor 2C 1 (EIF2CI). EIF2CI is located on chromosome 1p34-35, and is also known as co-eiF2C, eiF2C, Golgi ER protein 95KDa, GERP95 and 099. It is an intracellular membrane associated protein thought to be involved in affect cell growth, morphology and tumounigenicity. Accordingly, antisense oligonucleotides that inhibit the expression of EIF2CI can antisense oligonucleotides that inhibit the expression of EIF2CI in cells including hyperproliferative disorders, familial hypercholesterolaemia including hyperproliferative disorders, familial hypercholesterolaemia progeriod syndrome. As such, the oligos of the present invention can be described as having cytostatic and antilipaemic activities. This cligation eukaryotic translation initiation factor 2C | (EIF2CI) DNA Sequence 20 BP; 6 A; 6 C; 4 G; 4 T; 0 U; 0 Other;

```
FLT JUL 30 IU:32:03 Z004
```

Gaps ö Score 13.2; DB 1; Length 20; pred. No. 5.6e+02; 0; Mismatches 3; Indels 1.6%; Conservative Query Match Best Local Similarity Matches 15; Conserv

145 GGGCTGCAGCTCCATACT 162

19 GGGCTGCAGCTCATTATT

g ò

465/c ADB6846S standard; DNA; 20 BP.

ADB68465;

(first entry) 04-DEC-2003 Primer/probe 4bD3 used to analyse DCAL DNA.

dendritic cell expressed S-adencsyl homocysteine hydrolase-like molecule; DC, AHCY; DCAL, antiallergic; immunosuppressive; allergy; asthma; allergic rhinitis; systemic anaphylaxis; autoimmune; diabetes mellitus; rheumatoid arthritis; transplant rejection; vaccine; gene therapy; 4bD3; primer; PCR; ss; probe

Unidentified

WO2003055997-A1.

24-DEC-2002; 2002WO-AU001761.

10-JUL-2003.

24-DEC-2001; 2001AU-00009741.

OF SISTERS OF MERCY IN QUEENSLAND. (ORDE-) ORDER

Angel NZ, Cooper BJ, Hart DNJ; Kato M,

WPI; 2003-559275/52.

New dendritic cell expressed S-adenosyl homocysteine hydrolase-like molecule (DCAL) gene, useful for preparing a composition for treating or preventing a condition e.g., allergy, autoimmune disease or transplant rejection

Example 3; Page 65; 189pp; English.

The invention relates to a novel isolated polynucleotide comprising a dendritic cell (DC)-expressed S-adenosyl homocysteine hydrolase (AHCY)-like molecule (DCAL) gene. The polynucleotide of the invention demonstrates antiallergic and immunosuppressive activities and may be useful for treating a condition including an allergy such as asthma, allergic rhinitis or systemic anaphylaxis, an autoimmune disease such as diabetes mellitus or rheumacoid arthritis or transplant rejection. Furthermore, the polynucleotide may be useful as a vaccine or during gene therapy procedures. The genetically modified animal or the identified modilatory agent of the invention may be used in the study of immunity, DC function, brain physiology or neuronal cell function. The current to analyse DCAL DNA. 

Seguence 20 BP; 4 A; 7 C; 5 G; 4 T; 0 U; 0 Other;

Gaps ., 1.6%; Score 13.2; DB 1; Length 20; 33.3%; Pred. No. 5.6e+02; v Mismatches 3; Indels 83.3%; 15; Conservative Best Local Similarity Matches 15; Conserv Query Match

.; 0

810 793 AACTGCAGGACTGACTGA Agcriccaccacricacrica

ઠ

ADC65837 standard; DNA; 20 RESULT 81 ADC65837/

ö

BP.

(first entry) 18-DEC-2003 Mouse TGF-beta receptor II targeted antisense oligonucleotide #36

mouse; antisense oligonucleotide; transforming growth factor beta receptor II; TGF-beta receptor II; typerproliferative disorder; breast cancer; autoimmune disorder; rheumatoid arthritis; 2.0-methoxyethyl gapmer; phosphorothioate backbone; ss; murine.

Mus musculus

WO2003000656-A2.

03-JAN-2003.

19-JUN-2002; 2002WO-US019665

21-JUN-2001; 2001US-00888361.

Murray SF, Wyatt JR;

WPI; 2003-175279/17.

claim 3; SEQ ID NO 133; 141pp; English.

The invention comprises antisense oligonucleotides that are targeted to the nucleic acid encoding transforming growth factor beta (TGF-beta) receptor II. The antisense oligonucleotides of the invention are useful for treating: hyperproliferative disorders (e.g. breast cancer), or an autoimmune disorder (e.g. rheumatoid arthritis). The present DNA sequence represents a 2.0-methoxyethyl gapmer oligonucleotide with a phosphorothioate backbone that is targeted to mouse TGF-beta receptor II. 

Sequence 20 BP; 2 A; 7 C; 4 G; 7 T; 0 U; 0 Other;

Gaps 0 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; tive 0; Mismatches 3; Indels 15; Conservative Similarity Query Match Best Local Si Matches 15,

0

N AGGGCAACCTGCAGGAGT 19

셤

ઠ

ВР ADC98524 standard; DNA; 20

SXXXXXXXXXXXXX

(first entry) 01-JAN-2004

low bone mineral density; BMD; bone damage; polymorphism; osteoporosis; single nucleotide polymorphism; SNP; PCR primer; ss; human.

Synthetic

(ISIS-) ISIS PHARM INC.

New compound having a sequence targeted to a nucleic acid encoding Transforming growth factor beta-receptor II, useful for preparing a composition for treating hyperproliferative disorder e.g., lung, liver,

colon or gastric cancer.

787 AGCGCAAACTGCAGGACT 804

RESULT 818 ADC98524 ADC98524;

OMD\_03 polymorphism marker PCR primer B primer seq.

```
The invention comprises antisense oligonucleotides which are targeted to the human madm2 gene. The antisense oligonucleotides of the invention are useful for reducing hyperproliferation of human cells. The antisense oligonucleotides are also useful for treating; hyperproliferative oligonucleotides are also useful for treating; hyperproliferative disorders (e.g. cancer), psoriasis, fibrosis, atherosclerosis, or restenosis. The antisense oligonucleotides are also useful for modulating apoptosis, and for increasing expression of p21. The present DNA sequence Tre presents a human mdm2 gene antisense oligonucleotide of the invention. The present sequence contains 2'-methoxyethoxy-residues and has a phosphorothioate backbone.
 Novel antisense compound targeted to 5' untranslated region, coding region, or intron:exon junction of nucleic acid molecule encoding mdm2, useful for treating e.g. cancer, psoriasis or restenosis by inhibiting
 Novel antisense compound targeted to 5' untranslated region, coding region, or intron:exon junction of nucleic acid molecule encoding mdm2, useful for treating e.g. cancer, psoriasis or restenosis by inhibiting mdm2 expression.
 Gaps
 Chiang MY;
 Chiang MY;
 .
0
 antisense oligonucleotide; human; mdm2; hyperproliferation; hyperproliferative disorder; cancer; psoriasis; fibrosis; atherosclerosis; restemosis; apoptosis modulation; p21; ss; 2'-methoxyethoxy-residue; phosphorothioate backbone.
 Length 20;
 Indels
 Koller E,
 Koller E,
 Seguence 20 BP; 9 A; 5 C; 2 G; 4 T; 0 U; 0 Other;
 Score 13.2; DB 1;
Pred. No. 5.6e+02;
0; Mismatches 3;
 Graham MJ, Monia BP,
 Monia BP,
 Human mdm2 antisense oligonucleotide #99.
 Example 9; SEQ ID NO 93; 289pp; English.
 Graham MJ,
 492 GATCTAATTGGAGATTTG 509
 20 GATCTTCTAGGAGATTTG 3
 BP.
 1.6%;
 02-DEC-2002; 2002WO-US038281.
 04-DEC-2001; 2001US-00005344
 ADD21536 standard; DNA; 20
 (first entry)
 Query Match
Best Local Similarity 83.3
Matches 15; Conservative
 Nero PS,
 (ISIS-) ISIS PHARM INC.
 Nero PS,
 (ISIS-) ISIS PHARM INC
 WPI; 2003-577263/54.
 WPI; 2003-577263/54.
 mdm2 expression.
 WO2003048315-A2.
 Miraglia LJ,
Manoharan M;
 Homo sapiens.
 Miraglia LJ,
Manoharan M;
 15-JAN-2004
 ADD21536;
 à
 g
 .
0
 The present invention describes a method of determining whether an individual is predisposed to susceptibility to low bone mineral density (BMD) and/or bone damage comprising identifying whether the individual has at least one polymorphism in a polymucleotide encoding a protein, where the polymucleotide is one of 81 200-500 nucleotide sequences (S1, see ADC982135 to ADC98315). An agent identified in an method from the present invention which can be used for the prevention or treatment of a disease resulting in susceptibility to low BMD and/or bone damage is useful in the manufacture of a medicament for use in modulating the susceptibility to low BMD and/or bone damage. The disease associated with low BMD and/or bone damage. The present PCR primer sequence is used in the exemplification of the present invention.
 Determining whether an individual is predisposed to susceptibility to low bone mineral density (BMD) and/or bone damage, involves identifying polymorphisms in associated genes.
 Gaps
 Bennett
 ..
0
 antisense oligonucleotide; human; mdm2; hyperproliferation; hyperproliferative disorder; cancer; psoriasis; fibrosis; atherosclerosis; restenosis; apoptosis modulation; p21; ss;
 Score 13.2; DB 1; Length 20;
Pred. No. 5.6e+02;
0; Mismatches 3; Indels
 Townley DJ, Mangion J, Galwey N,
 -methoxyethoxy-residue; phosphorothioate backbone
 Sequence 20 BP; 5 A; 7 C; 3 G; 5 T; 0 U; 0 Other;
 Human mdm2 antisense oligonucleotide #91.
 Example 8; Page 239; 246pp; English
 .
0
 660 CTCATGCAGCTGAAGCTC 677
 BP.
 20-DEC-2001; 2001US-0342711P.
 19-DEC-2002; 2002WO-US040948
 1.6%;
 02-DEC-2002; 2002WO-US038281.
 04-DEC-2001; 2001US-00005344
 (INCY-) INCYTE GENOMICS INC
 CTAATGCAGCTCAACCTC
 ADD21528 standard; DNA; 20
 (first entry)
 15; Conservative
 Valdes A,
Schafer A;
 WPI; 2003-559156/52
 Query Match
Best Local Similarity
 WO2003054218-A2
 WO2003048315-A2.
Homo sapiens
 Homo sapiens
 15-JAN-2004
 ή,
Ķ
 ADD21528;
 Jones
 RESULT 819
 Matches
```

ADD21528/

ò g ; 0

```
The invention comprises antisense oligonucleotides which are targeted to the human madm2 gene. The antisense oligonucleotides of the invention are useful for reducing hyperproliferation of human cells. The antisense oligonucleotides are also useful for treating: hyperproliferative disorders (e.g. cancer), psoriaais, fibrosis, atherosclerosis, or restenosis. The antisense oligonucleotides are also useful for modulating apoptosis, and for increasing expression of p21. The present DNA sequence represents a human mdm2 gene antisense oligonucleotide of the invention. The present sequence contains 2'-methoxyethoxy-residues and has a phosphorothioate backbone.
 G protein coupled receptor; GPCR; signal transduction pathway; G protein; Alzheimer's disease; Parkinson's disease; diabetes; dwarfism; colour blindness; retinal pigmenticsa; asthma; depression; schizophrenia; sleeplessness; hypertension; anxiety; stress; renal failure; cardiovascular disorder; neural disorder; oncology disorder; immune disorder; neuroprotective; gene therapy; PCR; primer; ss.
 New nucleic acid, useful for manufacturing a medicament for preventing, treating or ameliorating a medical condition e.g., neural disorder.
 Human G-protein coupled receptor (GPCR) related PCR primer Seg ID38.
 1.6%; Score 13.2; DB 1; Length 20; 83.3%; Pred. No. 5.6e+02; ative 0; Mismatches 3; Indels
 Sequence 20 BP; 6 A; 5 C; 3 G; 6 T; 0 U; 0 Other;
 Gopal S, Mintier GA;
Example 9; SEQ ID NO 101; 289pp; English
 .;
 CTCCAGGAACTTGGCATT 485
 (BRIM) BRISTOL-MYERS SQUIBB CO
 20-AUG-2001; 2001US-0313658P.
12-SEP-2001; 2001US-0318675P.
30-OCT-2001; 2001US-0340703P.
26-NOV-2001; 2001US-0333417P.
06-DEC-2001; 2001US-0338367P.
06-FEB-2002; 2002US-0355596P.
 N
 ВР
 15-AUG-2002; 2002WO-US026017.
 CTACAGGAACTTGGTAGT
 139/c
ADD18139 standard; DNA; 20
 Feder JN, Ramanathan CS,
 15-JAN-2004 (first entry)
 Local Similarity 83.3
 WPI; 2003-278558/27.
 WO2003016478-A2.
 Homo sapiens
 27-FEB-2003
 468
 19
 ADD18139;
 Query Match
 Matches
 ADD18139/

NX AC ADD18

NX ADD18139/

NX ADD18

NX ADD18

NX ADD18

NX ADD18

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

NX COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC COLON

CCC C
\overset{\circ}{\mathbf{x}}\overset{\circ}
 ö
 셤
```

ö

Gaps

. 0

```
This invention describes novel oligonucleotide primers or peptide nucleic acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP) and cytosine methylation status in chemically prereated genomic DNA. The oligonucleotides are used for diagnosis and/or prognosis of cancer and a range of diseases including immune system, gastrointestinal, respiratory, central nervous system, ardiovascular and metabolic disorders. The oligomers are also used for detecting cell type differentiation. ABC0010-ABC9989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073 represent the oligomers described in the invantion. NOTE: The sequence data for this patent did not form part of the printed specification, but the was obtained in electronic format from WIPO at
 ö
Alzheimer's, Parkinson's, diabetes, dwarfism, colour blindness, retinal pigmentosa and asthma. They are also involved in depression, schizophrenia, sleeplessness, hypertension, anxiety, strees, renal failure and other cardiovascular, neural, oncology and immune disorders. A modulator of the GFKs of the invention may have neuroprotective activity whilst the sequences of the invention may be useful for gene therapy. The invention may also be useful for mandiacuting a medicament for preventing, treating or ameliorating a medical condition. The present sequence is that of a PCR primer which was used for amplification of a region of a gene encoding a human GPCR during the exemplification of the
 SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS; peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss; central nervous system; gastrointestinal; respiratory; immune; metabolic.
 Gaps
 Set of oligonucleotides, useful for diagnosis and cell typing, is designed to detect single-nucleotide polymorphisms and cytosine
 .
0
 Oligonucleotide SEQ ID NO 10857 for detecting SNP TSC0002705.
 Length 20;
 Claim 1; SEQ ID NO 10857; 29pp + Sequence Listing; German.
 3; Indels
 BP; 1 A; 0 C; 3 G; 9 T; 0 U; 0 Other;
 Sequence 20 BP; 3 A; 5 C; 5 G; 7 T; 0 U; 0 Other;
 / Match 1.6%; Score 13.2; DB 1;
Local Similarity 83.3%; Pred. No. 5.6e+02;
les 15; Conservative 0; Mismatches ?.
 Berlin K;
 363
 Н
 BP.
 07-APR-2000; 2000DE-01019173
 06-APR-2001; 2001WO-IB000713
 18 Greccagaagcaaccrer
 346 GIGCCAGCGCCAACCIGI
 ABC10866 standard; DNA; 13
 20-FEB-2002 (first entry)
 Olek A, Piepenbrock C,
 (EPIG-) EPIGENOMICS AG.
 WPI; 2001-657177/75.
 methylation status.
 WO200177384-A2
 Homo sapiens
 18-OCT-2001.
 invention
 ABC10866;
 Query Match
 Matches
 ABC10866
 8
 셤
```

e jed Te

This invention relates to novel G protein coupled receptors (GPCRs) and their encoding nucleotide sequences. Many medically significant biological processes are mediated by proteins participating in signal transduction pathways involving G proteins. GPCRs are one of the largest receptor superfamilies known. These receptors are biologically important and malfunction of these receptors results in diseases such as

Example 1; SEQ ID NO 38; 251pp; English.

SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS; peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss; central nervous system; gastrointestinal; respiratory; immune; metabolic.

WO200177384-A2.

Oligonucleotide SEQ ID NO 229695 for detecting SNP TSC0056032.

(first entry)

22-FEB-2002

ABH29718;

schu568-1.rng

```
ö
 This invention describes novel oligonucleotide primers or peptide nucleic acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP) and cytosine methylation status in chemically pretreated genomic DNA. The oligonucleotides are used for diagnosis and/or prognosis of cancer and a range of diseases including immune system, gastrointestinal, respiratory, central nervous system, cardiovascular and metabolic disorders. The oligomers are also used for detecting cell type differentiation. ABC00010-ABC09989, ABF00010-ABF99899, ABM00010-ABH99989 and ABI00010-ABI82073 represent the oligomers described in the invention. NOTE: The sequence data for this patent did not form part of the printed specification, but the wipo.int/pub/published_pct_sequences
 SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS; peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss; central nervous system; gastrointestinal; respiratory; immune; metabolic.
 Gaps
 Set of oligonucleotides, useful for diagnosis and cell typing, idesigned to detect single-nucleotide polymorphisms and cytosine
 ô
 Oligonucleotide SEQ ID NO 229696 for detecting SNP TSC0056032.
 Claim 1; SEQ ID NO 229696; 29pp + Sequence Listing; German.
 / Match 1.6%; Score 13; DB 1; Length 13; Local Similarity 100.0%; Pred. No. 3.2e+02; Les 13; Conservative 0; Mismatches 0; Indels
 1.6%; Score 13; DB 1; Length 13; 100.0%; Pred. No. 3.2e+02; ive 0; Mismatches 0; Indels
 Sequence 13 BP; 8 A; 3 C; 0 G; 2 T; 0 U; 0 Other;
 Berlin K;
 BP.
 06-APR-2001; 2001WO-IB000713.
 07-APR-2000; 2000DE-01019173.
 ABH29719 standard; DNA; 13
 934 GGTTTTGTTTAT 946
 (first entry)
1 GGTTTTGTTTTAT 13
 Piepenbrock C,
 (EPIG-) EPIGENOMICS AG
 WPI; 2001-657177/75.
 designed to detect methylation status.
 WO200177384-A2
 22-FEB-2002
 18-OCT-2001
 Ouery Match
Best Local Si
Matches 13;
 ABH29719;
 Olek A,
 RESULT 823
ABH29719/c
 à
 g
```

```
ö
 This invention describes novel oligonucleotide primers or peptide nucleic acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP) and cytosine methylation status in chemically pretreated genomic DNA. The oligonucleotides are used for diagnosis and/or prognosis of cancer and a range of diseases including immune system, gastrointestinal, respiratory, central nervous system, cardiovascular and metabolic disorders. The oligomers are also used for detecting cell type differentiation. ABC0010-ABE99989, ABF00010-ABE99989, ABH00010-ABH99989 and ABI00010-ABI82073 represent the oligomers described in the invention. NOTE: The sequence data for this patent did not form part of the printed specification, but the wipo.int/pub/published_pct_sequences
 SNP, single nucleotide polymorphism, human, diagnosis, PNA, cancer, CNS, peptide nucleic acid, cytosine methylation, cardiovascular, primer, ss, central nervous system; gastrointestinal, respiratory, immune, metabolic.
 Gaps
 set or oligonucleotides, useful for diagnosis and cell typing, i designed to detect single-nucleotide polymorphisms and cytosine methylation status.
 ..
0
 Oligonucleotide SEQ ID NO 10858 for detecting SNP TSC0002705.
 Claim 1; SEQ ID NO 229695; 29pp + Sequence Listing; German.
 1.6%; Score 13; DB 1; Length 13; 100.0%; Pred. No. 3.2e+02; tive 0; Mismatches 0; Indels
 Seguence 13 BP; 2 A; 0 C; 3 G; 8 T; 0 U; 0 Other;
 ĸ,
 Berlin
 ABC10867 standard; DNA; 13 BP.
 06-APR-2001; 2001WO-IB000713.
 07-APR-2000; 2000DE-01019173,
 933 AGGTTTTGTTTA 945
 (first entry)
 1 AGGTTTTGTTTTA 13
 Query Match 1.6
Best Local Similarity 100.
Matches 13; Conservative
 Piepenbrock C,
 (EPIG-) EPIGENOMICS
 WPI; 2001-657177/75.
 Homo sapiens
 18-OCT-2001.
 20-FEB-2002
 olek A,
 RESULT 825
 ABC10867,
ò
 g
```

ö

Gaps

., 0

ABH29718 standard; DNA; 13 BP.

RESULT 824 ABH29718 ID ABH2

933 AGGITTIGITITA 945

ò g

13 AGGTTTTGTTTA 1

(RIBO-) RIBOZYME PHARM INC.

```
ö
 This invention describes novel oligonuclectide primers or peptide nucleic acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP) and cytosine methylation status in chemically pretreated genomic DNA. The oligonuclectides are used for diagnosis and/or prognosis of cancer and a range of diseases including immune system, gastrointestinal, respiratory, central nervous system, cardiovascular and metabolic disorders. The oligomers are also used for detecting cell type differentiation. ABC0010-ABC99889, ABF00010-ABF99889, ABH00010-ABF99889 and ABI00010-ABF82073 represent the oligomers described in the invention. NOTE: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format from WIPO at
 Human; aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis; integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme; harmehead ribozyme; angiogenic factor; cytostatic; antidiabetic; ophthalmologic; antiniflammatory; antiarthritic; antipsoriatic; ARMD; dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis; age related macular degeneration; inflammation; neovascular glaucoma; myopic degeneration; posriasis; veruca vulgaris; angiofibroma; tuberous sclerosis; pot-wine stain; Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.
 Gaps
 Set of oligonucleotides, useful for diagnosis and cell typing, i designed to detect single-nucleotide polymorphisms and cytosine methylation status.
 ;
 / Match 1.6%; Score 13; DB 1; Length 13; Local Similarity 100.0%; Pred. No. 3.2e+02; nes 13; Conservative 0; Mismatches 0; Indels
 Claim 1; SEQ ID NO 10858; 29pp + Sequence Listing; German.
 Integrin subunit beta 3 target site SEQ ID NO:6640.
 Sequence 13 BP; 9 A; 3 C; 0 G; 1 T; 0 U; 0 Other;
 Berlin K;
 AAA23414 standard; RNA; 14 BP.
 06-APR-2001; 2001WO-IB000713.
 99WO-US006507.
 98US-0079678P.
 07-APR-2000; 2000DE-01019173
 934 GGTTTTGTTTAT 946
 19-JUN-2000 (first entry)
 Olek A, Piepenbrock C,
 (EPIG-) EPIGENOMICS AG
 WPI; 2001-657177/75
WO200177384-A2
 Homo sapiens
 WO9950403-A2
 24-MAR-1999;
 27-MAR-1998;
 07-OCT-1999.
 AAA23414;
 13
 Query Match
 RESULT 826
 Matches
 à
 d
```

```
The present lime present lime present the content of a cleaving activity, which specifically cleave RNA encoded by an arryl hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3 gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA1765 to AAA17621 to AAA17622 to AAA17684 represent their corresponding target sequences; AAA17685 to AAA1985 and AAA1985 and AAA1987 to Corresponding target sequences; AAA1985 to AAA1985 and AAA1988 and AAA1986 to AAA1987 to AAA19822 represent their corresponding target sequences; AAA19223 to AAA21952 represent their corresponding target sequences; AAA19223 to AAA21950 to AAA21950 and AAA1985 to AAA2196 and AAA21950 to AAA21985 to AAA21985 and AAA21950 and AAA21969 to AAA2168 represent their corresponding target sequences; AAA2189 to AAA2168 represent their corresponding target sequences; AAA2189 to AAA2168 represent their corresponding target sequences; C for integrin subunit beta 3, and AAA22476 to AAA23343 to C AAA2342 represent their corresponding target sequences (c the invention are used for modulating the synthesis, expression and/or stability of an mRNA encoding angiogenic factor, especially ARNT, integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are c sepecially used to tract cancer, diabetic retinopathy, age related macular degeneration (ARND), inflammation, and arthitis, as well as the evascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris, and other syndrome, Kippel-Trenaunay-Weber spidcing to be a levels of ARNT, Tie-2, and other syndromes and diseases related to the levels of ARNT, Tie-2, and other syndromes when a conting the syndrome, when a conting the syndrome, when a conting the syndrome, when a conting the syndrome, when a conting the conting the syndrome, when a conting the
 ô
 Bnzymatic nucleic acid; hammerhead ribozyme; virus replication; cleavage;
cirrhosis; liver failure; hepatocellular carcinoma; interferon; cancer;
autoimmune disease; ss.
 for modulating the synthesis, expression and/or stability
 present invention describes enzymatic nucleic acid molecules with RNA
 Gaps
 Substrate for hammerhead ribozyme which cleaves HCV RNA at nt. 8887.
 .;
0
 Coeshott C, Mcswiggen JA;
 1.6%; Score 13; DB 1; Length 14;
51.5%; Pred. No. 3.6e+02;
ive 5; Mismatches 0; Indels
 integrin subunit alpha-6, or integrin subunit beta-3
 Sequence 14 BP; 1 A; 2 C; 6 G; 0 T; 5 U; 0 Other;
 of an mRNA encoding an angiogenic factors.
 Claim 54; Page 277; 305pp; English.
 Roberts E, Jarvis T,
 AAZ64410 standard; RNA; 15 BP.
 99WO-US009027.
 98US-0083217P.
 Query Match
Best Local Similarity 61.5%;
Watches 8; Conservative
 134 GTCTGCTTTGGGG 146
 28-MAR-2000 (first entry)
 2 gucudcumudada 14
 WPI; 1999-591315/50.
 depatitis C virus.
 Novel ribozymes
 26-APR-1999;
 27-APR-1998;
18-SEP-1998;
 04-NOV-1999.
 Pavco PA,
ò
 셤
 PRANCE OF THE PROPERTY OF THE
```

```
The present sequence represents the preferred target sequence of an enzymatic nucleic acid, especially a hammerhead ribozyme, which cleaves the Hepatitis C virus (HCV) RNA sequence at the base position given in the descriptor line. The HCV sequence was screened for optimal ribozyme target sites using a computer folding algorithm and regions of the mRNA which did not form secondary folding structures and contained potential ribozyme cleavage sites were identified. Ribozymes were synthesised to target these sites and their activities optimised by either varying the target these sites and their activities optimised by either varying the target the binding arms or by modification to prevent degradation by nucleases. The ribozymes of the invention inhibit gene expression and/or viral replication, and are used to treat diseases associated with Hepatotisis virus (HCV) infection, e.g. cirrhosis, liver failure and hepatocellular carcinoma. The ribozymes may be used in combination with interferon to treat HCV infection, other infectious diseases, autoimmune
 ò
 Enzymatic nucleic acid; hammerhead ribozyme; virus replication; cleavage; cirrhosis; liver failure; hepatocellular carcinoma; interferon; cancer;
 ţ
 Substrate for HH ribozyme HCV-7901 which cleaves HCV RNA at nt. 7901.
 Novel ribozymes for the treatment of diseases and conditions related hepatitis C infection.
 Gaps
 .;
0
 Macejak D;
 Macejak D;
 1.6%; Score 13; DB 1; Length 15;
100.0%; Pred. No. 4e+02;
tive 0; Mismatches 0; Indels
 Sequence 15 BP; 2 A; 7 C; 0 G; 0 T; 6 U; 0 Other;
 Pavco PA,
 Pavco PA,
 Roberts E,
 Blatt L, Mcswiggen JA, Roberts E,
 Claim 1; Page 91; 123pp; English.
 AAZ62807 standard; RNA; 15 BP
 98US-0100842P.
99US-0100842P.
99US-00257608.
99US-00274553.
 99WO-US009027.
 99US-00274553.
99US-00257608
 (RIBO-) RIBOZYME PHARM INC
 772 TGGAGAAGAAGTG 784
 (RIBO-) RIBOZYME PHARM INC
 (first entry)
 13; Conservative
 13 TGGAGAAGAGTG 1
 Mcswiggen JA,
 autoimmune disease; ss.
 WPI; 2000-062023/05
 WPI; 2000-062023/05
 Query Match
Best Local Similarity
 Hepatitis C virus.
25-FEB-1999;
 23-MAR-1999;
 WO9955847-A2
 28-MAR-2000
 26-APR-1999;
 27-APR-1998;
18-SEP-1998;
 25-FEB-1999
 04-NOV-1999
 AAZ62807;
 Blatt L,
 RESULT 828
 Matches
 AAZ62807/
##X#X#X#X#X##X##X
 ઠ
 셤
```

```
consymatic nucleic acid, especially a hammerhead ribozyme, which cleaves the Hepatitis C virus (HCV) RNA sequence at the base position given in the Hepatitis C virus (HCV) RNA sequence at the base position given in the Hepatitis C virus (HCV) RNA sequence at the base position given in target sites using a computer folding algorithm and regions of the mRNA which did not form secondary folding algorithm and regions of the mRNA which did not form secondary folding structures and contained potential cribozyme clasavage sites were identified. Ribozymes were synthesised to target these sites and their activities optimised by either varying the length of the binding arms or by modification to prevent degradation by ural replication, and are used to treat diseases associated with Hepatitis C virus (HCV) infection, e.g. cirrhosis, liver failure and hepatitis C virus (HCV) infection, e.g. cirrhosis, liver failure and interferon to treat HCV infection, other infectious diseases, autoimmune diseases, and cancer
 ö
 Ameliorating the effects of a disorder, e.g. psoriasis, by administering UV (ultra-violet) treatment (optional) and an antisense nucleic acid that inhibits or reduces growth factor mediated cell proliferation and/or inflammation.
 Antisense therapy, antiproliferative, antiinflammatory; antipsoriatic; cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid; skin discorder; Insulin-like Growth Factor I receptor; IGF-1; pityriasis; IGF binding proctein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris; growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba; keardosis; neophasia; scleroderma; wart; skin cancer; sclerotic disease; hypermeovascular condition; hyperplasia; kidney disease; neovascular condition; hyperplasia; kidney disease;
 Novel ribozymes for the treatment of diseases and conditions related hepatitis C infection.
 Gaps
 The present sequence represents the preferred target sequence of
 ö
 Ouery Match 1.6%; Score 13; DB 1; Length 15; Best Local Similarity 100.0%; Pred. No. 4e+02; Matches 13; Conservative 0; Mismatches 0; Indels
 Sequence 15 BP; 4 A; 2 C; 3 G; 0 T; 6 U; 0 Other;
 Edmondson SR;
 (MURD-) MURDOCH CHILDRENS RES INST
 Claim 1; Page 64; 123pp; English.
 BB
 21-JUN-2000; 2000WO-AU000693
 99US-0140345P
 IGF-I oligonucleotide #4294.
 AAF53334 standard; DNA; 15
 710 CATAGCCAAATTT 722
 (first entry)
 15 cáradoceaaartr 3
 Wraight CJ, Werther GA,
 WPI; 2001-041421/05.
 WO200078341-A1.
 Homo sapiens.
 21-JUN-1999;
 30-MAR-2001
 28-DEC-2000
 RESULT 829
 AAF53334/
```

Example 8; Page 89; 201pp; English  $\overset{\circ}{\mathsf{A}}\overset{\mathsf{A}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C}}{\mathsf{C}}\overset{\mathsf{C$ 

```
The present invention relates to a method for ameliorating the effects of skin disorders. The method comprises contacting the skin with an antisense alignounclectide, (for Insulin-like Growth Factor [108]-1 receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of inhibiting or reducing growth factor mediated cell proliferation, of inflammation and/or other disorders. The present sequence is an inflammation and/or other disorders. The present sequence is an oligonuclectide which can be used to design the antisense oligonuclectide which can be used to design the antisense oligonuclectide is useful for ameliorating the effects of psoriasis, ichthyosis, pityriasis, ruba, pitaris, serborrhoea, keloids, keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the skin, a hyperneovascular condition such as a neovascular condition of the retina, the brain or skin, growth factor-mediated malignancies, other sclerotic disease, kidney disease, hyperplasia
```

Sequence 15 BP; 3 A; 4 C; 3 G; 5 T; 0 U; 0 Other;

```
.;
0
 1.6%; Score 13; DB 1; Length 15; 100.0%; Pred. No. 4e+02; ative 0; Mismatches 0; Indels
 319 ACTGCAGAGAGC 331
Query Match
Best Local Similarity 100.
Watches 13; Conservative
 6
```

ö

Gaps

ACTGCAGAGAAGC 1 13 g

AAF53329 standard; DNA; 15 BP AAF53329

IGF-I oligonucleotide #4289. 30-MAR-2001 (first entry)

Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic; cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid; skin discorder; Insulin-like Growth Factor I receptor; IGF-1; pityriasis; IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilatis; growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba; keatoolsis, neoplasia; scleroderma; wart; skin cancer; sclerotic disease; hyperneovascular condition; hyperplasis, kidney disease; neobascular condition; the retina; ss. 

Homo sapiens

WO200078341-A1.

28-DEC-2000.

21-JUN-2000; 2000WO-AU000693.

(MURD-) MURDOCH CHILDRENS RES INST. 99US-0140345P, 21-JUN-1999;

Edmondson SR; Wraight CJ, Werther GA,

WPI; 2001-041421/05

Ameliorating the effects of a disorder, e.g. psoriasis, by administering UV (ultra-violet) treatment (optional) and an antisense nucleic acid that inhibits or reduces growth factor mediated cell proliferation and/or inflammation.

Example 8; Page 88; 201pp; English.

The present invention relates to a method for ameliorating the effects of skin disorders. The method comprises contacting the skin with an

```
ô
antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1 receptor, IGF binding protein [IGFBF]-2 or IGFBF], which is capable of inhibiting or reducing growth factor mediated cell proliferation, inflammation and/or other disorders. The present sequence is an oligonucleotide which can be used to design the antisense oligonucleotide which can be used to design the antisense oligonucleotides of the present invention (see AAF45151 and AAF45153-F45161). The method is useful for ameliotating the effects of psoriasis, inthoseis, pityriasis, ruba, pliaris, serborrhoea, keloids, keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the skin, a hypermevascular condition such as a neovascular condition of the retina, brain or skin, growth factor-mediated malignancies, other sclerotic disease, kidrey disease, hyperproliferation of the inside of blood vessels or any other hyperpralasia
 Gaps
 .;
0
 interleukin 4 receptor-alpha; IL4R-alpha;
 Query Match 1.6%; Score 13; DB 1; Length 15; Best Local Similarity 100.0%; Pred. No. 4e+02; Matches 13; Conservative 0; Mismatches 0; Indels
 Stephens JC;
 Sequence 15 BP; 3 A; 5 C; 3 G; 4 T; 0 U; 0 Other;
 Duda A, Nandabalan K,
 Human IL4Ralpha gene probe #177.
 (GENA-) GENAISSANCE PHARM INC.
 AAF69537 standard; DNA; 15 BP.
 13-JUL-1999; 99US-0143435P.
 13-JUL-2000; 2000WO-US019094
 Polymorphism; human; interle allergic disease; probe; ss
 322 GCAGAGAAGCTGT 334
 (first entry)
 15 GCAGAGAAGCTGT 3
 Chew A, Denton RR, Windemuth AK;
 WPI; 2001-103078/11.
 WO200104270-A1.
 18-APR-2001
 Homo sapiens
 18-JAN-2001.
 à
 셤
```

The present invention relates to polymorphisms of the human interleukin 4 receptor-alpha gene (IL4R-alpha; see AAF57718 for the reference sequence). Polymucleotides comprising polymorphic gene variants are useful for therapeutic purposes. For example, where a patient may benefit from expression of a particular IL4Ralpha protein isoform, an expression vector encoding the isoform may be administered to the patient. It may desirable to decrease or block expression of a particular IL4Ralpha isogene, which may be done by turning off by transforming a targeted organ, tissue or cell population with an expression vector that expresses high levels of untranslatable mRNA for the isogene. Specific therapeutics identified by these methods may be useful for allergic diseases. The present sequence is a probe for human IL4R-alpha

New isolated polynucleotide useful for the identification of therapeutics

Claim 15; Page 45; 188pp; English

in allergic diseases is new

in the second

used as probes and primers, and for detecting polymorphism in EDN2 gene. The present sequence is an ASO primer used to detect polymorphism in Sequence 15 BP; 2 A; 8 C; 4 G; 1 T; 0 U; 0 Other; Claim 16; Page 14; 91pp; English. Tanguay DA; BP. (GENA-) GENAISSANCE PHARM INC. 21-MAY-2001; 2001WO-US016433. 19-MAY-2000; 2000US-0205761P. AAD26137 standard; DNA; 15 143 GGGGCTGCAGCT 155 (first entry) 13; Conservative 14 GGGGGCTGCAGCT 2 Koshy B, WPI; 2002-083075/11. Local Similarity WO200190118-A2 Homo sapiens. 26-MAR-2002 Kazemi A, AAD26137; Query Match RESULT 832 Matches AAD26137/ Š 

.; 0 Gaps ö 1.6%; Score 13; DB 1; Length 15; 100.0%; Pred. No. 4e+02; tive 0; Mismatches 0; Indels

Human endothelin 2 (EDN2) gene polymorphism detecting ASO primer #10.

Human, endothelin 2; EDN2; polymorphic site; PS; therapy; hypertension; dxug screening; cardiovascular disorder; renal insufficiency; ASO; allele specific oligomucleotide; cerebroprotective; polymorphism; hypotensive; cerebrovascular condition; primer; ss.

New human endothelin 2 (EDN2) polymorphic variants and encoding genes, useful in expressing EDN2 protein for screening candidate drugs to treat diseases related to EDN2 activity.

The invention relates to genetic variants of human endothelin 2 (EDN2) gene. EDN2 gene contains 17 polymorphic sites PS1-PS17. The polymorphic variants are useful in studying the expression and function of EDN2, in expressing EDN2 protein for use in screening for candidate drugs to treat diseases related to EDN2 activity, in studying the effect of the candidate drugs targetring EDN2 for the treatment of hypertension, variation on the biological activity of EDN2, and the binding affinity of cardiovascular disorders, renal insufficiency and cerebrovascular conditions. The haplotyping methods are useful in validating EDN2 as a candidate target for treating a specific condition or disease predicted to be associated with EDN2 activity, or in the design of clinical trials of candidate drugs for treating a specific condition or disease associated with EDN2 activity, or in the design of clinical trials second with EDN2 activity, or in the design of clinical trials associated with EDN2 activity, Allele specific oligonucleotides (ASO) are

.; 0 1.6%; Score 13; DB 1; Length 15; 86.7%; Pred. No. 4e+02; cive 1; Mismatches 1; Indels Sequence 15 BP; 3 A; 2 C; 8 G; 1 T; 0 U; 1 Other; Query Match
Best Local Similarity 86.73
Matches 13, Conservative

ö

Gaps

15 CRCTCCCTGCTCCAG

ABQ72217 standard; DNA; 15 BP. RESULT

ABQ72217;

(first entry) 02-SEP-2002 Human CYP2D6 allele-specific oligonucleotide (ASO) probe, SEQ ID NO:4.

Human; cytochrome P450; subfamily IID polypeptide 6; CYP2D6; enzyme; chromosome 22431.; drug metabolism; detoxification; mono-coxygenase; antiarrhythmic; arrhythmia; adrenoreceptor antagonist; hypertension; tricyclic antidepressant; procainamide; drug induced lupus syndrome; environmentally linked disease; Parkinsons's disease; haplotyping; genetic variant; single nucleotide polymorphism; sub, drug screening; drug discovery; allele-specific oligonucleotide; ASO; probe; ss.

Homo sapiens.

WO200238589-A2.

16-MAY-2002

09-NOV-2001; 2001WO-US047396.

09-NOV-2000; 2000US-0247943P.

GENA-) GENAISSANCE PHARM INC.

Denton RR, Nandabalan K; Choi JY, E, Anastasio AE, Che. - N Rounds

WPI; 2002-519292/55.

Novel genetic variants of Cytochrome P450, Subfamily IID, Polypeptide isogenes, useful for improving efficiency and reliability in drug development for treating hypertension, arrhythmias and Parkinson's disease

Claim 15; Page 17; 158pp; English.

The invention relates to a method for haplotyping the cytochrome P450, subfamily IID, polypeptide 6 (CYP2D6) gene (ABQ72215, ABQ7264) of an individual, and also describes 29 novel polymorphic sites within the human CYP2D6 gene. The CYP2D6 gene is located on chromosome 22q13.1 and the contains 9 exons which encode a 497 amino acid protein (ABB09563). CYP2D6 is a mono-oxygenase involved in the detoxification of many drugs and environmental chemicals. It plays a role in the metabolism of drugs such as antidarrhythmics, adrenoreceptor antagonists and tricyclic antidepressants, and is also involved in the formation of a metabolite linked to the drug-induced lupus syndrome observed with procainamide. Individual's susceptibility to environmentally-linked diseases, and it has been demonstrated that CYP2D6 activity may be involved in the pathogenesis of Parkinsons's disease, with individuals with a less active form of the enzyme tending to have an earlier onset of this condition. CYP2D6 nucleic acid sequences are useful in studying the expression and function of CYP2D6, and in expressing CYP2D6 protein for use in screening cuts for the treatment of CYP2D6-associated diseases (e.g., hypertension, atrial and ventricular arribythmias, Parkinson's disease, and surgainduced lupus syndrome metabolised by CYP2D6.

The contains and are expressing or parkinson's disease, and surgainduced lupus syndrome metabolised by CYP2D6.

The pathogenesis of parkinson or well and ventricular arribythmias, Parkinson's disease. CYP2D6 nucleic acids and proteins are also useful in studying the effect of polymorphisms on the biological activity of CYP2D6. Polymorphisms in the target region may be determined by the use of allele-specific oligonucleotides (ASOS, ABQ72217-ABQ7303) as probes and primers, and by primer extension using oligonucleotide primers comprising sequences ABQ72304-ABQ72361. The method of the invention is useful for haplotyping the CYP2D6 gene in populations and in individuals, enabling decisions to

ö

Gaps .; 0

Length 15; 1; Indels

```
The invention relates to single nucleotide polymorphisms in the gene encoding the human natriuretic peptide receptor A/quanylate cyclase A (atrionatriuretic peptide receptor A) or NPR1 polypeptide. A method for haplotyping the NPR1 gene in an individual comprises identifying the nucleotide at one or more polymorphic sites and determining whether one of the copies of the gene is defined by one of the NPR1 haplotypes given in the specification or whether both copies are defined by a haplotype pair. This method is useful in genotyping, whereby all possible haplotype pair. This method is useful in genotyping, whereby all possible haplotype pairs and a haplotype or haplotype pair of the NPR1 gene can be indentified by comparing the frequency of the haplotype or haplotype pair in a population exhibiting the trait with the frequency of the haplotype or haplotype pair in a reference population, where a higher haplotype or haplotype for haplotype for haplotype in the trait population indicates the trait is associated with
be made as to whether CYP2D6 is a likely therapeutic target for a disease of interest, and to control for genetically-based bias in the design of drugs that target or are metabolised by CYP2D6. In addition, transgenic animals comprising a human CYP2D6 gene are useful for studying the expression of CYP2D6 isogenes in vivo, for in vivo screening and testing of drugs targeted to or metabolised by CYP2D6, and for testing the efficacy of therapeutic agents and compounds for treating CYP2D6 associated conditions in a biological system. Sequences ABQ72217-ABQ72245 represent specifically claimed allele-specific oligonucleotide (ASO) probes used for detecting polymorphisms in the CYP2D6 gene
 Genotyping human natriuretic peptide receptor A/guanylate cyclase gene of
an individual, involves determining identity of nucleotide pair at
specific polymorphic sites for two copies of the gene.
 Human; natriuretic peptide receptor A/guanylate cyclase A; NPR1; ss; atrionatriuretic peptide receptor A; haplotyping; cytostatic; genotyping; haplotype pair; single nucleotide polymorphism; gene therapy; PCR primer; drug screening; hypertension; hypotensive; sequencing primer; probe.
 Human NPR1 gene allele-specific oligonucleotide sequencing primer #21
 Sequence 15 BP; 2 A; 5 C; 5 G; 2 T; 0 U; 1 Other;
 Nandabalan
 1.6%; Score 13; DB 1;
86.7%; Pred. No. 4e+02;
ative 1; Mismatches
 Choi JY, Kliem SE,
 Claim 15; Page 14; 96pp; English
 BP.
 (GENA-) GENAISSANCE PHARM INC.
 16-APR-2001; 2001WO-US012300.
 14-APR-2000; 2000US-0197330P
 606 GTGGACGTGGCCATC 620
 ABK09399 standard; DNA; 15
 GIGGACCYGGCCAIC 1
 14-MAR-2002 (first entry)
 Query Match 1.6
Best Local Similarity 86.7
Matches 13; Conservative
 WPI; 2002-066340/09
 Bentivegna SC,
 WO200179231-A2
 Homo sapiens
 25-OCT-2001
 ABK09399;
 15
 ABKO03999/
ABKO03999/
XXX ABKO0
XXX
XXX ABKO
XXX
XXX Human
XXX Human
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Homo
XXX Hom
 ઠે
 음
```

꿌

```
ö
 The present invention relates to enzymatic nucleic acids which specifically cleave RNA derived from Hepatitis C virus (HCV). The enzymatic nucleic acid our ribozyme is in a hammerhead (HH) or hairpin (HP) motif where the binding arms comprise sequences complementary to one of the substrate sequences defined in the specification. The HCV ribozymes are useful for modulating the expression and/or replication of hepatocallular carcinoma. The HCV tibozymes are also useful for treat cirrhosis, liver failure and/or hepatocallular carcinoma. The HCV ribozymes are also useful for treating a condition associated with HCV infection in conjunction with one or more other drug therapies, particularly type I interferon, especially
 viral
the haplotype or haplotype pair. NPR1 and its corresponding DNA are used for studying the expression and function of NPR1, for use in screening for candidate drugs to treat diseases related to NPR1 activity, such as hypertension. The sequences are also useful for studying the effect of variation on the biological activity of NPR1 as well as on the binding affinity of candidate drugs targeting NPR1. Sequences AAS99959-AAS9990 and ABX09390-ABK09462 represent probes, sequencing primers and PCR primers used to detect NPR1 gene polymorphisms
 Enzymatic nucleic acid; RNA cleavage; Hepatitis C virus infection; HCV ribozyme; HCV expression; HCV replication; cirrhosis; virucide; liver failure; hepatocellular carcinoma; HCV infection; drug therapy; type I interferon; interferon alpha; interferon beta; cycostatic; interferon gamma; consensus interferon; hepatotropic; antiinflammatory; substrate; hammerhead ribozyme; HH ribozyme; ss.
 New ribozymes targeting RNA derived from hepatitis C virus inhibit vireplication and are useful to treat hepatitis C virus infections and cirrhosis, liver failure or hepatocellular carcinoma.
 Gaps
 Hepatitis C virus substrate #440 for HCV hammerhead ribozyme #440.
 ;
 Ä
 Length 15;
 Macejack
 1; Indels
 Sequence 15 BP; 1 A; 4 C; 5 G; 4 T; 0 U; 1 Other;
 Pavco PA,
 1.6%; Score 13; DB 1;
86.7%; Pred. No. 4e+02;
 Mismatches
 m
 Roberts
 Claim 1; Page 33; 80pp; English.
 1;
 BP.
 261 GACAGGAGCACCTTC 275
 99US-00274553
 99US-00274553
 Query Match
Best Local Similarity bo..
Local 13; Conservative
 ABX00658 standard; RNA; 15
 (first entry)
 15 GRCAGGAGCACCTAC
 Blatt L, Mcswiggen JA,
 BLATT L.
MCSWIGGEN J A.
ROBERTS B.
PAVCO P A.
 WPI; 2002-617759/66
 Hepatitis C virus.
 US2002082225-A1.
 33-MAR-1999;
 23-MAR-1999;
 23-DEC-2002
 27-JUN-2002.
 ABX00658;
 (BLAT/)
(MCSW/)
(ROBE/)
 (PAVC/)
(MACE/)
 832
 RESULT
 g
 88888888888888
 ò
```

Fri

schu568-1.rng

```
ö
interferon alpha, beta or gamma or consensus interferon. The present sequence represents a substrate for a HCV hammerhead (HH) riboxyme. Note: Some of the sequence data for this patent did not form part of the printed specification. The complete sequence data for this patent was obtained in electronic format directly from the USPTO web site at
 New ribozymes targeting RNA derived from hepatitis C virus inhibit viral replication and are useful to treat hepatitis C virus infections and cirrhosis, liver failure or hepatocellular carcinoma.
 Enzymatic nucleic acid, RNA cleavage, Hepatitis C virus infection, HCV ribozyme, HCV expression, HCV replication, cirthosis, virucide, liver failure, hepatocellular carcinoma, HCV infection, drug therapy, type I interferon, interferon alpha, interferon beta, cytostatic, interferon gamma, consensus interferon, hepatotropic, antiinflammatory,
 Gaps
 Hepatitis C virus substrate #1245 for HCV hammerhead ribozyme #1245.
 ö
 Macejack D;
 1.6%; Score 13; DB 1; Length 15; 100.0%; Pred. No. 4e+02; Ive 0; Mismatches 0; Indels
 BP; 4 A; 2 C; 3 G; 0 T; 6 U; 0 Other;
 gamma; consensus interteron; hepatot; hammerhead ribozyme; ss
 Pavco PA,
 seqdata.uspto.gov/psipsDIDEntry.html
 Roberts B,
 Local Similarity 100.0%; P. les 13; Conservative 0;
 Claim 1; Page 57; 80pp; English.
 BP.
 99US-00274553.
 99US-00274553.
 ABX01463 standard; RNA; 15
 710 CATAGCCAAATTT 722
 (first entry)
 15 CATAGCCAAATTT 3
 Blatt L, Mcswiggen JA,
 MCSWIGGEN J A.
 WPI; 2002-617759/66.
 ROBERTS B.
PAVCO P A.
 MACEJACK D
 Hepatitis C virus
 US2002082225-A1.
 23-MAR-1999;
 23-MAR-1999;
 23-DEC-2002
 Sequence 15
 27-JJN-2002
 substrate;
 ABX01463;
 Query Match
 (ROBE/) |
(PAVC/)
(MACE/) |
 BLAT/)
 Best Loca
Matches
 RESULT 836
 ABX01463/
 8888888
 g
```

The present invention relates to enzymatic nucleic acids which specifically cleave RNA derived from Hepatitis C virus (HCV). The enzymatic nucleic acid our ribozyme is in a hammerhead (HH) or hairpin of the substrate sequences defined in the specification. The HCV ribozymes are useful for modulating the expression and/or replication of HCV. They can be used to treat cirrhosis, liver failure and/or hepatocellular carcinoma. The HCV ribozymes are also useful for treating a condition associated with HCV infection in conjunction with one or more other drug therapies, particularly type I interferon, especially interferon alpha, beta or gamma or consensus interferon. The present sequence represents a substrate for a HCV hammerhead (HH) ribozyme. Note:

```
ô
 New nucleic acid regulatory sequences, which are able to regulate expression of a gene operably linked to a promoter, useful for regulating the expression of transgenes and for treating e.g., cancer and
 The invention describes an isolated nucleic acid regulatory sequence for a cyclin D1 promoter, a CD40L promoter, vancomycin-resistant enterococci (VRE) promoter, an HBV promoter, and more promoter, and more promoter, and more promoter. Transcription regulatory sequences may be used to regulate expression of the endogenous, autologous or heterologous genes operably linked to the promoter, and may be incorporated into heterologous and eterologous promoter, and may be incorporated into
 Cyclin D1 promoter; CD40L promoter; hepatitis B virus promoter;
HBV promoter; vancomycin-resistant enterococci promoter; VRE promoter;
vanH promoter; androgen receptor promoter; AP promoter;
human epidermal growth factor receptor 2 promoter; herz promoter;
beta lactamase promoter; Bla promoter; transgene; cancer; breast cancer
colon cancer; immunological disorder; prostate cancer; cytostatic;
autoimmune disease; HBV pre-8 promoter; HBV-X promoter;
Bnterococcus infection; immunosuppressive; antibacterial; antiviral;
gene expression modulator; multiple sclerosis; MS;
chronic hepatic insulficiency; cirrhosis; hepatocellular carcinoma;
systematic lupus erythematosus; SLE; graft-vs-host disease; GVHD;
familial adenomatous polyposis; rheumatoid arthritis; PCR; primer;
 Gaps
Some of the sequence data for this patent did not form part of the printed specification. The complete sequence data for this patent obtained in electronic format directly from the USPTO web site at seqdata.uspto.gov/psipsDIDEntry.html
 Laurance ME, Michelotti EF; nomas RL, Kongpachith A, Sheppard LT;
 .
0
 1.6%; Score 13; DB 1; Length 15;
100.0%; Pred. No. 4e+02;
cive 0; Mismatches 0; Indels
 Sequence 15 BP; 2 A; 7 C; 0 G; 0 T; 6 U; 0 Other;
 Hepatitis B virus preSl promoter domain 5 mutant.
 Tam AW, Dawren
 (GENE-) GENELABS TECHNOLOGIES INC.
 Example 3; Page 45; 95pp; English.
 BP.
 06-JUN-2000; 2000US-0209549P.
 06-JUN-2001; 2001WO-US018343.
 ABK30004 standard; DNA; 15
 772 TGGAGAAGAGTG 784
 (first entry)
 13; Conservative
 13 recadadadard 1
 Latour DR,
 diseases,
 mutant; transgenic; ds
 JP, Starr DB, T
Velligan MD, Latour '
Lim MY, Br''.
 WPI; 2002-130595/17.
 Query Match
Best Local Similarity
 Hepatitis B virus.
 WO200194600-A2.
 immunological
 23-APR-2002
 13-DEC-2001.
 ABK30004;
 Matches
 ABK30004/
8×3000x8
 셤
 à
```

```
therapies, Regulated expression of cyclin D1 can be used in cancer therapies, such as breast, colon or pancreatic cancers and familial adenates polyposis. Regulation of the activity of CD40L gene promoter may be used in the treatment of immunological disorders, such as autoimmune diseases e.g. multiple sclerosis (MS), systematic lupus carthritis. Regulated expression of genes under the control of the HBV (hepatitis B)-specific core, pre-S and X promoters can be used in the therapy of HBV disease, chronic hepatic insufficiency, cirrhosis, hepaticis and collular carcinoma, and in the regulated expression of liver cell-specific genes. Regulated expression of the vanh gene promoter can be used in treatment of Enterococcus infection, while regulated expression of the vanh gene promoter can be used in the treatment of prostate cancer. This sequence represents a mutated promoter region used in the invention to determine the regulatory regions involved in gene invention, described in the method of the invention
```

Sequence 15 BP; 1 A; 4 C; 5 G; 5 T; 0 U; 0 Other;

```
Length 15;
 0; Indels
Score 13; DB 1;
Pred. No. 4e+02;
0; Mismatches C
 .
0
 Query Match
Best Local Similarity 100.0%;
Matches 13; Conservative 0
 788 GCGCAAACTGCAG 800
 ð
```

15 GCGCAAACTGCAG 3 ద

901/c AAS95901 standard; DNA; 15 BP. AAS95901/ RESULT

26-FEB-2002 (first entry) AAS95901; 

Human CALM1 gene allele-specific oligonucleotide #10.

Calmodulin 1; CALM1; human; single nucleotide polymorphism; SNP; haplotyping; SCYA3; Alzheimer's disease; drug screening; calcium-dependent signal transduction; PCR primer; ss.

sapiens Ношо WO200179218-A2

25-OCT-2001

09-APR-2001; 2001WO-US011509.

12-APR-2000; 2000US-0196340P.

(GENA-) GENAISSANCE PHARM INC

Stephens JC; 'n, Koshy Choi JY, Chew A, Bentivegna SC,

WPI; 2002-049190/06.

New calmodulin-1 (CALM-1) isogene polymorphic variants, useful in expressing CALM1 protein for use in screening for candidate drugs to treat diseases related to CALM1 activity such as Alzheimer's disease.

Claim 15; Page 13; 82pp; English

The invention relates to an isolated polynucleotide comprising a sequence selected from a polymorphic variant of calmodulin 1 (CALM1). The polymorphic variant comprises an CALM1 isospene defined by a haplotype selected from haplotypes 1-21 given in the specification. The polymorphisms are useful for studying the biological function of CALM1 as well as in identifying drugs targeting this protein for the treatment of a disorder related to its abnormal expression or function. The polymorphic variants may also be used in screening for compounds targeting CALM1 to treat a specific condition or disease predicted to be

```
associated with CALMI activity. Establishing CALMI haplotype or haplotype pair of an individual is useful for improving the efficiency and reliability of several steps in the discovery and development of drugs for treating diseases associated with SCYA3 activity, e.g. Alzheimer's disease and diseases involving defects in calcium-dependent signal transduction. Haplotyping the CALMI gene in an individual is also useful in the design of clinical trials of candidate drugs for treating a specific condition or disease predicted to be associated with CALMI activity, Assosso2-Aassocols represent human CALMI allele- specific oligonucleotides and PCR primers of the invention
 Sequence 15 BP; 2 A; 2 C; 10 G; 0 T; 0 U; 1 Other;
```

```
ö
 Gaps
 ..
1.6%; Score 13; DB 1; Length 15;
86.7%; Pred. No. 40+02;
tive 1; Mismatches 1; Indels
 Local Similarity 86.7 les 13; Conservative
 Query Match
 Matches
```

ò

RESULT 839 AAA23036

ö

; 0

BP. AAA23036 standard; RNA; 17

AAA23036;

(first entry) 19-JUN-2000 Integrin subunit beta 3 substrate sequence SEQ ID NO:6262

Human, aryl hydrocarbon nuclear transport; ARNT; TIE-2; angiogenesis; integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme; hammerhead ribozyme; angiogenic factor; cytostatic; antidabetic; ophthalmologic; antinflammatory; antiarthritic; antibsoriatic; ARND; dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis; age related macular degeneration; inflammation; neovascular glaucoma, myopic degeneration; poriasis; vertuca vulgaris; angiofibroma; tuberous solerosis; pot-wine stain; Sturge Weber syndrome; Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss.

Homo sapiens.

WO9950403-A2

24-MAR-1999;

98US-0079678P 27-MAR-1998; (RIBO-) RIBOZYME PHARM INC.

Coeshott C, Mcswiggen JA; Pavco PA, Roberts E, Jarvis T,

WPI; 1999-591315/50.

Novel ribozymes for modulating the synthesis, expression and/or stability of an mRNA encoding an angiogenic factors. 

Claim 54; Page 258; 305pp; English.

The present invention describes enzymatic nucleic acid molecules with RNA cleaving activity, which specifically cleave RNA encoded by an aryl hydrocarbon nuclear transporter (ARNY) gene, an integrin subunit beta 3 gene, an integrin alpha 6 subunit gene, or a Tie-2 gene. AAA16775 to AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT, and AAA17168 to AAA17622 represent their corresponding target sequences; AAA17681 to AAA19086 to AAA19154 represent ribozyme sequences for Tie-2, and AAA18386 to AAA19086 and AAA19155 to AAA19222 represent their corresponding target sequences; AAA19232 to AAA19222 represent their corresponding target sequences; AAA19223 to AAA19223 to AAA19223 to AAA21501 to AAA21595 represent ribozyme

```
Corresponding target sequences; AAA17685 to AAA18385 and AAA1908 to AAA19154 represent ribozyme sequences for Tie-2, and AAA18186 to AAA19086 and AAA19155 to AAA191222 represent their corresponding target sequences; AAA19233 to AAA21861 and AAA21861 to AAA21859 represent ribozyme sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and AAA21868 represent their corresponding target sequences; AAA21869 to AAA2184 represent their corresponding target sequences; AAA21842 represent their corresponding target sequences; the invention are used for modulating the synthesis, expression and/or stability of an mRNA encoding angiogenic factor, especially ARNT, integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are sepecially used to treat cancer, diabetic retinopathy, age related mecular degeneration (ARMD), inflammation, and arthritis, as well as neovascular glaucoma, myopic degeneration, psoriasis, verruca vulgaris, syndrome, Kippel-Trenaunay-Weber syndrome, Osler-Weber-Rendu syndrome, and diseases related to the levels of ARNT, Tie-2, and conternation the levels of ARNT, Tie-2, and contents and diseases related to the sequence and the levels of ARNT, Tie-2, and contents ana
 and AAA17168 to AAA17560 and AAA17623 to AAA17684 represent their
 integrin subunit alpha-6, or integrin subunit beta-3
 Sequence 17 BP; 3 A; 2 C; 7 G; 0 T; 5 U; 0 Other;
 AAF07197 standard; DNA; 17 BP
 Query Match
Best Local Similarity 61.5%;
Matches 8; Conservative
 RESULT 841
 AAF07197,
 ઠે
 셤
 ..
 AAA21696 to AAA21688 represent their corresponding target sequences, AAA21689 to AAA22475 and AAA2246 to AAA2342 represent ribozyme sequence for integrin subunit beta 3, and AAA2246 to AAA2326, AAA2334 to AAA2342 represent their corresponding target sequences. The ribozymes of the invention are used for modulating the synthesis, expression and/or stability of an mRNA encoding angiogenic factor, especially ARNT, integrin subunit beta-3, integrin subunit alpha-6, or Tie-2. They are especially used to treat cancer, diabetic retinopathy, age related macular degeneration (ARND), inflammation, and arthritis, as well as encowacular glaucoma, myopic degeneration, psoriasis, verruca vulgaris, angiofibroma of tuberous sclerosis, poleranes syndrome, Sturge Weber syndrome, Kippel-Trenaunay Weber syndrome, Other syndromes and diseases related to the levels of ARNT, Tie-2,
 Gaps
sequences for integrin alpha 6 subunit, and AAA20362 to AAA21500 and
 ;
0
 Integrin subunit beta 3 substrate sequence SEQ ID NO:6261.
 Score 13; DB 1; Length 17;
Pred. No. 4.9e+02;
5; Mismatches 0; Indels
 integrin subunit alpha-6, or integrin subunit beta-3
 Sequence 17 BP; 3 A; 2 C; 7 G; 0 T; 5 U; 0 Other;
 AAA23035 standard; RNA; 17 BP.
 Query Match 1.6%;
Best Local Similarity 61.5%;
 134 GTCTGCTTTGGGG 146
 (first entry)
 1 GUCUGCUUUGGGG 13
 8; Conservative
 19-JUN-2000
 AAA23035;
 RESULT 840
 Matches
 AAA23035
```

à g

888888888888888888

ö

Gaps

. 0

1.6%; Score 13; DB 1; Length 17; 51.5%; Pred. No. 4.9e+02; Ve 5; Mismatches 0; Indels

134 GTCTGCTTTGGGG 146

2 cucuccumoces 14

(first entry)

AAF07197;

```
Ribozyme, erythropoietin; granulocyte colony stimulating factor;
 Hammerhead ribozyme substrate #3454.
 11-APR-2000; 2000WO-US009721.
 interferon alpha; ss.
 WO200061729-A2
 Homo sapiens.
 12-APR-1999;
 16-FEB-2001
 19-0CT-2000,
 Blatt L,
Human; aryl hydrocarbon nuclear transport; ARNT; TIB-2; angiogenesis; integrin alpha 6 subunit; integrin subunit beta 3; hairpin ribozyme; hammerhead ribozyme; angiogenic factor; cytostatic; antidiabetic; ophthalmologic; antidiflammatory; antiarthritic; antigsoriatic; ARWD; dermatological; RNA cleavage; cancer; diabetic retinopathy; arthritis; age related macular degeneration; inflammation; neovascular glaucoma; myopic degeneration; poriasis; extruca vulgaris; angiofibroma; tubercus sclerosis; pot-wine stain; Sturge Weber syndrome;
 Kippel-Trenaunay-Weber syndrome; Osler-Weber-Rendu syndrome; ss
 Coeshott C,
 Jarvis T,
 99WO-US006507.
 98US-0079678P.
 (RIBO-) RIBOZYME PHARM INC.
 Pavco PA, Roberts E,
 Homo sapiens
 WO9950403-A2
```

```
The present invention relates to enzymatic and antisense nucleic acid molecules that act as inhibitors of the expression of repressor genes encoding the TR2 Orphan receptor, EAR3/COUP-TF-1, the GATA transcription factor gene, IRF-2 and/or the CAATT Displacement Protein (CDP). Inhibition of the repressors removes prevents inhibition (and consequently increases expression of) genes involved in the production of
 Enzymatic and antisense nucleic acid inhibition of repressor genes, useful for producing e.g. granulocyte colony stimulating factor protein, interferon alpha and erythropoietin.
 Zwick M, Pavco P, Mcswiggen J;
 Claim 54; Page 135; 164pp; English.
(RIBO-) RIBOZYME PHARM INC
 WPI; 2000-647423/62.
```

The present invention describes enzymatic nucleic acid molecules with RNA cleaving activity, which specifically cleave RNA encoded by an aryl hydrocarbon nuclear transporter (ARNT) gene, an integrin subunit beta 3 gene, an integrin alpha 6 subunit gene, or a Tie-2 gene, AAA16775 to AAA17167 and AAA17561 to AAA17622 represent ribozyme sequences for ARNT,

Novel ribozymes for modulating the synthesis, expression and/or stability

of an mRNA encoding an angiogenic factors.

WPI; 1999-591315/50.

24-MAR-1999; 27-MAR-1998;

07-OCT-1999,

Claim 54; Page 258; 305pp; English.

Mcswiggen JA;

99US-0129390P

```
The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polynuclectide sequences of hGDMLP-1 can be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids can be used as probes to detect, characterise and quantify hGDMLP-1 nucleic acids in samples, as amplification substrates, to provide initial substrates for the recombinant engineering of hGDMLP-1 protein variants having desired phenotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunogens to raise antibodies that specifically recognise hGDMLP
 ö
 New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1.
 Human, genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart; muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss.
 Gaps
 Human GDMLP-1 17-mer scanning SEQ ID NO:4 sequence SEQ ID NO:1761.
 Shannon ME
erythropoietin, granulocyte colony stimulating factor protein and interferon alpha
 ö
 Length 17;
 0; Indels
 Chen W,
 Sequence 17 BP; 2 A; 8 C; 5 G; 2 T; 0 U; 0 Other;
 1.6%; Score 13; DB 1; Le
100.0%; Pred. No. 4.9e+02;
ative 0; Mismatches 0;
 Rank DR,
 Disclosure; SEQ ID NO 1761; 214pp; English
 Hanzel DK,
 30-JAN-2001; 2001W0-US000661.
30-JAN-2001; 2001W0-US000662.
30-JAN-2001; 2001W0-US000663.
30-JAN-2001; 2001W0-US000664.
30-JAN-2001; 2001W0-US000666.
30-JAN-2001; 2001W0-US000666.
30-JAN-2001; 2001W0-US000667.
30-JAN-2001; 2001W0-US000667.
30-JAN-2001; 2001W0-US000669.
 ABN01769 standard; DNA; 17 BP
 26-MAY-2000; 2000US-0207456P.
21-SEP-2000; 2000US-0234687P.
27-SEP-2000; 2000US-0236359P.
04-OCT-2000; 2000GB-00024263.
 25-MAY-2001; 2001WO-US016981.
 722 TCAGGAGCTGCGG 734
 (first entry)
 Best Local Similarity 100.
Matches 13, Conservative
 13 rcaddadcrdcdd 1
 Gu Y, Ji Y, Penn SG,
 WPI; 2002-179446/23.
 (AEOM-) AEOMICA INC.
 WO200192524-A2
 Homo sapiens
 29-MAY-2002
 06-DEC-2001
 ABN01769;
 Query Match
 RESULT 842
 22 X 23
```

```
..
0
 New polypeptide, for raising antibodies that recognize hGDMLP-1 proteins, or as specific blomolecule capture probes for surface-enhanced laser descrption ionization, comprises human myosin-like protein hGDMLP-1.
and/or amount specifically of hGDMLP proteins, as specific biomolecule and/or amount specifically of hGDMLP proteins, as specific biomolecule capture probes for surface-enhanced laser desorption ionisation, at the supplement in partients having specific deficiency in hGDMLP-1 production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The polymucleotide sequences encoding hGDMLP-1 may be used for diagnosing a disorder associated with the expression of hGDMLP-1, in particular heart and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22. The present sequence represents an oligomer used in the screening of the hGDMLP-1 sequence on the exemplification of the present invention. N.B. The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from MIPO at ftp.wipo.int/pub/published_pct_sequence
 Human, genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart; muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss.
 Gaps
 Human GDMLP-1 17-mer scanning SEQ ID NO:4 sequence SEQ ID NO:1760.
 Shannon ME;
 .;
0
 Score 13; DB 1; Length 17;
Pred. No. 4.9e+02;
 0; Indels
 Chen W,
 Sequence 17 BP; 6 A; 3 C; 6 G; 2 T; 0 U; 0 Other;
 Rank DR,
 1.6%; Scc...
V 100.0%; Pred. No. ...
O, Mismatches
 Hanzel DK,
 26-MAY-2000; 2000US-0207456P.
21-SEP-2000; 2000US-0234687P.
27-SEP-2000; 2000US-0234587P.
04-OCT-2000; 2000US-0236359P.
04-OCT-2000; 2001WO-US000661.
30-JAN-2001; 2001WO-US000662.
30-JAN-2001; 2001WO-US000666.
30-JAN-2001; 2001WO-US000666.
30-JAN-2001; 2001WO-US000666.
30-JAN-2001; 2001WO-US000666.
30-JAN-2001; 2001WO-US0006670.
30-JAN-2001; 2001WO-US000668.
30-JAN-2001; 2001WO-US000669.
 ABN01768 standard; DNA; 17 BP.
 25-MAY-2001; 2001WO-US016981
 441 CTAAAGCCAGATG 453
 (first entry)
 2 CTAAAGCCAGATG 14
 Query Match
Best Local Similarity 100.
Matches 13, Conservative
 Gu Y, Ji Y, Penn SG,
 WPI; 2002-179446/23.
 (AEOM-) AEOMICA INC.
 WO200192524-A2.
 29-MAY-2002
 Homo sapiens
 06-DEC-2001.
 ABN01768;
 RESULT
 g
 ઠ
```

```
The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-1 can be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids can be used as probes to detect, characterise and quantify hGDMLP-1 nucleic acids in samples, as amplification substrates, to hGDMLP-1 mucleic acids in samples, as amplification substrates, to provide intial substrates for the recombinant engineering of hGDMLP-1 protein variants having desired phenotypic improvements, and for expressing the proteins. The hGDMLP-1 proteins or polypeptides may be used as immunospens to raise antibodies that specifically recognise hGDMLP-1 proteins, as specifically of hGDMLP proteins, as specific biomolecule and/or amount specifically of hGDMLP proteins, as specific biomolecule capture probes for surface-enhanced laser description ionisation, as therapeutic supplement in patients having specific deficiency in hGDMLP-1 production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The production, and in vaccines or for replacement therapy. The concentration of the sequence senceding hGDMLP-1 may be used for diagnosing a disorder associated with the expression of hGDMLP-1; in particular heart and skeletal muscle disorders. hGDMLP-1 is localised to chromosome 22. The present sequence in the exemplification of the printed hGDMLP-1 sequence data for this patent did not form part of the printed processing a concentration of the printed processing and concentration of the printed processing and concentration of the printed printed printed processing and concentration of the printed printed printed processing and concentration of the printed processing and concentration of the printed
 ö
 Human, genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart;
muscle; myosin; chromosome·22; gene therapy; vaccine; heart disease;
skeletal muscle disorder; amplicon; screening; ss.
 Gaps
 Human GDMLP-1 17-mer scanning SEQ ID NO:4 sequence SEQ ID NO:1758.
 ;
0
 1.6%; Score 13; DB 1; Length 17; 100.0%; Pred. No. 4.9e+02; tive 0; Mismatches 0; Indels
 Sequence 17 BP; 6 A; 3 C; 5 G; 3 T; 0 U; 0 Other;
Disclosure; SEQ ID NO 1760; 214pp; English.
 ftp.wipo.int/pub/published_pct_sequence
 ABN01766 standard; DNA; 17 BP.
 2000US-0234687P.
2000US-0236359P.
2000GB-00024263.
 25-MAY-2001; 2001WO-US016981
 2001WO-US000661
 2001WO-US000662.
2001WO-US000663.
 2001WO-US000664,
 2001WO-US000665.
2001WO-US000666.
 30-JAN-2001; 2001WO-US000670
05-FEB-2001; 2001US-0266860P
 2001WO-US000667
 441 CTAAAGCCAGATG 453
 (first entry)
 3 crahadeceadare 15
 13; Conservative
 Query Match
Best Local Similarity
Matches 13; Conserva
 WO200192524-A2.
 30-JAN-2001;
 JAN-2001;
 Homo sapiens
 04-OCT-2000;
 30-JAN-2001;
 30-JAN-2001;
30-JAN-2001;
 30-JAN-2001;
 29-MAY-2002
 27-SEP-2000;
 30-JAN-2001;
 21-SEP-2000;
 06-DEC-2001.
 ABN01766;
 RESULT 844
 &XCCCCCCCCCCCCXXX
 ઠે
 셤
```

```
The present invention describes a human genome-derived myosin-like protein 1 (hGDMLP-1). The protein and polynucleotide sequences of hGDMLP-1 can be used in gene therapy and vaccine production. The hGDMLP-1 nucleic acids can be used as probes to detect, characterise and quantify hGDMLP-1 nucleic acids in samples, as amplification substrates, to provide initial substrates for the recombinant engineering of hGDMLP-1 protein variants having desired phenotypic improvements and for case as immunogens to raise antibodies that specifically recognise hGDMLP-1 proteins or polypeptides may be used as immunogens to raise antibodies that specifically recognise hGDMLP-1 proteins, as specific biomolecule and/or amount specifically of hGDMLP-proteins, as specific biomolecule and/or amount specifically of hGDMLP-proteins, as specific biomolecule capture probes for surface-enhanced laser desorption ionisation, as therapeutic supplement in patients having specific deficiency in hGDMLP-1 production, and in vaccines or for replacement therapy. The polymucleotide sequences encoding hGDMLP-1 may be used for diagnosing a polymucleotide sequence encoding hGDMLP-1 is localised to chromosome 22. The present sequence represents an oligomer used in the screening of the hGDMLP-1 sequence date for this patient did not form part of the printed specification, but was obtained in electronic format directly from WIPO
 New polypeptide, for raising antibodies that recognize hCDMLP-1 proteins, or as specific biomolecule capture probes for surface-enhanced laser desorption ionization, comprises human myosin-like protein hGDMLP-1.
 Human; genome-derived myosin-like protein 1; GDMLP-1; hGDMLP-1; heart; muscle; myosin; chromosome 22; gene therapy; vaccine; heart disease; skeletal muscle disorder; amplicon; screening; ss.
 Gaps
 Shannon ME;
 Human GDMLP-1 17-mer scanning SEQ ID NO:4 sequence SEQ ID NO:1759.
 ó,
 Query Match 1.6%; Score 13; DB 1; Length 17; Best Local Similarity 100.0%; Pred. No. 4.9e+02; Matches 13; Conservative 0; Mismatches 0; Indels
 Chen W,
 Sequence 17 BP; 5 A; 3 C; 6 G; 3 T; 0 U; 0 Other;
 Rank DR,
 Disclosure; SEQ ID NO 1758; 214pp; English.
 at ftp.wipo.int/pub/published_pct_sequence
 Hanzel DK,
 ABN01767 standard; DNA; 17 BP.
 25-MAY-2001; 2001WO-US016981.
 2000US-0234687P.
2000US-0236359P.
2000GB-00024263.
 2000US-0207456P
 441 CTAAAGCCAGATG 453
 (first entry)
 5 CTAAAGCCAGATG 17
 Penn SG,
 (AEOM-) AEOMICA INC.
 WPI; 2002-179446/23.
 WO200192524-A2
 Ji Y,
 21-SEP-2000; 27-SEP-2000; 204-OCT-2000; 2
 Homo sapiens.
 26-MAY-2000;
 29-MAY-2002
 06-DEC-2001.
 ABN01767;
 Gu Y,
 RESULT 845
 ABN01767
%XGXGCCCCCCCCCCCCCCXXXXBEEXXXXX
 8
```